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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 s
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Perfect score:
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                                                                                   SPTREMBL_21:*

SP_Archea:*

Sp_bacteria

Sp_fungi:*

Sp_human:*

Sp_invert

Sp_invert

Sp_mamma

Sp_mamma

Sp_mac:*

Sp_pa

Sp_pa
Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB
DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             seq length: 0 seq length: 2000000000
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Gapop 10.0 ,
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2529
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GenCore version 5.1.3
Copyright (c) 1993 - 2002 Compugen Ltd
                                                                                          sp_unclassified:*
sp_rvirus:*
sp_bacteriap:*
sp_archeap:*
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sp_phage:*
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sp_bacteria:*
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1041.683 Million cell updates/sec
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240	240.5	245	252	252.5	253	254	254.5	254.5	257	257.5	272	274.5	274.5	397.5	1154	Score
9.5	9.5	9.7	10.0	10.0	10.0	10.0	10.1	10.1	10.2	10.2	10.8	10.9	10.9	15.7	45.6	Query Match Length
188	434	233	258	258	253	523	258	255	371	497	415	489	489	156	334	Length I
11	11	4	11	13	4	13	4	11	4	4	4	11	11	4	6	DB
Q9Z0U6	Q9D2R3	Q96L06	Q99MM7	Q98ST6	Q9H3Y0	Q98ST5	043692	Q9CWG1	Q96K61	09нов8	Q8TCB8	Q9ET66	Q9JJ56	Q96HH2	Q9BE36	ID
Q9z0u6 rattus norv	Q9d2r3 mus musculu	Q96106 homo sapien	Q99mm7 mus musculu	Q98st6 gallus gall	Q9h3y0 homo sapien	Q98st5 gallus gall	O43692 homo sapien	Q9cwg1 mus musculu	Q96k61 homo sapien	Q9h0b8 homo sapien	Q8tcb8 homo sapien	Q9et66 mus musculu	Q9jj56 mus musculu	Q96hh2 homo sapien	Q9be36 macaca fasc	Description

	Q9VFY2 Q9VFY2 Q9GOR5 Q9UPK6 Q9USD3 Q61830 Q61830	55 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	2500 380 392 315 249 1456 207 211 168		201.5 196.5 196.5 195.5 191.5 189.5 189.5 185.5 184.5	330000000000000000000000000000000000000
Q9h108 Q9h336 Q99mm6 Q969k2 Q969k2 Q969k6 Q99661 Q90466 Q904236 Q904236 Q904114 Q91114 Q91114 Q91114	Q9H108 Q9H3M6 Q99MM6 Q969K2 Q95WFE1 Q9WGFE1 Q9DAG6 Q9CQ35 Q9CQ35 Q9CQ35 Q9CQ35 Q9CQ35 Q9CQ35	5 4 1 1 1 1 3 5 4 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	203 500 500 266 301 1290 236 237 217 215 243 2443	8888888889999	235.5 234.2 234.2 238.5 228.5 226.5 225.2 225.2 225.2 225.2 225.2 207.5 207.5 207.5	789012845B6001

ALIGNMENTS

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RESULT 1
Q9BE36
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Best Local Similarity 94.3
Matches 212; Conservative
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Q9BE36;
Q1-JUN-2001 (TrEMBLrel. 17, Created)
Q1-JUN-2001 (TrEMBLrel. 17, Last sequence update)
Q1-JUN-2002 (TrEMBLrel. 21, Last annotation update)
Hypothetical 35.9 kDa protein.
Macaca fascicularis (Crab eating macaque) (Cynomolgus monkey).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
                                                                                                                                                                                                                                                                                                                                                                                            Submitted (APR-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; AB060195; BAB41141.1; -.
HSSP; P04284; ICEE.
InterPro; IPR001283; Allrgn_V5/Tpx1.
Pfam; PF00188; SCP; 1.
PRINTS; PR00837; V5TPXLIKE.
ProDom; PD000542; Allrgn_V5/Tpx1; 1.
SMART; SM00198; SCP; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TISSUB-CERBBELLUM CORTEX;
Osada N., Hida M., Kusuda J., Tanuma R., Iseki K., Hirai M., Terao
Suzuki Y., Sugano S., Hashimoto K.;
Tisolation of full-length cDNA clones from macaque brain cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Cercopithecinae; Macaca.
NCBI_TaxID=9541;
                                                                                                                                                                                                                                                                                                                    Hypothetical protein SEQUENCE 334 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             libraries."
                                      1 MLHPETSPGRGHLLAVLLALLGTTWAEVWPPQLQEQAPMAGALNRKESFLLLSLHNRLRS
\vdash
MLHSETSPGRGHLLAVLLAFLGTTWAEVWPPQLQEQAPMARALTRKESFLLLSLHNRLRS
                                                                                                                                                                                     45.6%;
94.2%;
                                                                                                                                                                                                                                                                                                                    35917 MW; 37B37E3D29DC0D19 CRC64;
                                                                                                                                                        2;
                                                                                                                                                   Score 1154; DB 6;
Pred. No. 3.6e-102;
2; Mismatches 11;
                                                                                                                                                                                                                                    Length 334;
                                                                                                                                                            Indels
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                 Matches
gene.";
Submitted (JUL-2000) to the
EMBL; AB046537; BAB03398.1;
HSSP; P04284; 1CFE.
                                                                                                                                                     01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
Cysteine-rich protease inhibitor.
1200009H1RIK OR CRIPI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q96HH2 PRELIMINARY; PRT; 156 AA. Q96HH2; Q1-DEC-2001 (TrEMBLrel. 19, Created) Q1-DEC-2001 (TrEMBLrel. 19, Last sequence update) Q1-DEC-2002 (TrEMBLrel. 20, Last annotation update) Q1-MAR-2002 (TrEMBLrel. 20, Last annotation update) Unknown (Protein for IMAGE:4178394) (Fragment).
                                                                                                                   Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                      SEQUENCE FROM N.A. Jang J.S., Hahn Y.
                                                           "Identification of novel
                                                                                                          NCBI_TaxID=10090;
                                                                                                                                                                                                                                     Q9JJ56
                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Submitted (MAY-2001) to the EMBL/GenBank/DDBJ databases EMBL; BC008616; AAH08616.1; -. InterPro; IPRO01304; Lectin_C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Strausberg R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TISSUE-BRAIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens (Human).
                                                                                                                                                                                                                                                                                                                          432
                                                                                                                                                                                                                                                                                                 133
                                                                                                                                                                                                                                                                                                                                                         372 GLTYKTAKDSFRWATGEHQAFTSFAFGQPDNHGLVWLSAAMGFGNCVELQASAAFNWNDQ 431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
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                                                                                                                                                                                                                                                                                                              RCKTRNRYICQFAQEHISRWGPGS 455
                                                                                                                                                                                                                                                                                                                                              GLTYKTAKDSFRWATGEHQAFTSFAFGQPATH----
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AYSPGGNWEVNGKTIIPYKKGAWCSLCTASVSGCFKAWDHAGGLC
                                                                                                                                                                                                                                                                                                                                                                                                                                                            PF00059; lectin_c; 1.

PF00059; lectin_c; 1.

TE; PS00615; C_TYPE_LECTIN_1; UNKNOWN_1.

TE; PS50041; C_TYPE_LECTIN_2; 1.

ER
                                                                                                                                                                                                                                                                                                                                                                                              Similarity 86.973; Conservative
                                                                      Hahn Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                156 AA;
                                                                                                                                                                                                                                     PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                               17134 MW;
                                                                     Chung J.H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Chordata; Craniata; Vertebrata; Euteleostomi; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                          15.7%;
                                                        mouse cycteine-rich protease inhibitor
                                                                                                                                                                                                                                                                                                                                                                                          0;
                                  EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                          Score 397.5; DB 4; Length Pred. No. 4e-30;
                                                                                                                   Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                    PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                               8A0F06A955C97306 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                    489
                                                                                                                                                                                                                                                                                                                                                                                              2;
                                                                                                                                                                                                                                                                                                                                              -GFGNCVELQASAAFNWNDQ
                                                                                                                                                                                                                                                                                                                                                                                               Indels
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                                                                                                                                                                                                                                                                                                                                                                                              9;
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RESULT

Q9ETT66

ID ETT66

ID ETT66

ID C9

AC Q9

DT 01

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DT 01

DT 01

DT 01

DT 01

RN CF

GN CF

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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                     Jang J.S., Hahn Y., Chung J.H.;
"Genomic structure of murine cysteine-rich protease inhibitor gene.";
Submitted (JUL-2000) to the EMBL/GenBank/DDBJ databases.
EMBL; AB046539; BAB03453.1; -.
EMBL; AB046538; BAB03453.1; JOINED.
HSSP: P04284; ICFE.
InterPro: IPR001283; Allrgn_V5/Tpx1.
Pfam; PF00188; SCP; 1.
PRINTS; PR00837; V5TPXLIKE.
PRINTS; PR000542; Allrgn_V5/Tpx1; 1.
SMART; SM00198; SCP; 1.
SMART; SM00198; SCP_AG5_PR1_SC7_1; 1.
PROSITE; PS01009; SCP_AG5_PR1_SC7_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     O9ET66;
01-MAR-2001 (TrEMBLrel. 16, Creat
01-MAR-2001 (TrEMBLrel. 16, Last
01-JUN-2002 (TrEMBLrel. 21, Last
Cysteine-rich protease inhibitor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRINTS; PRO0837; V5TPXLIKE.

ProDom; PD000542; Allign_V5/Tpx1; 1.

SMART; SM00198; SCP; 1.

PROSITE; PS01009; SCP_AG5_PR1_SC7_1; 1.

PROSITE; PS01010; SCP_AG5_PR1_SC7_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                 Protease.
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
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Pfam; PF00188; SCP; 1.
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                                                                                                                                                                             13 LLAVLLALLGTTWAEVWPPQLQEQAPMAGALNRKESFLLLSLHNRLRSWVQPPAADMRRL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  73 DWSDSLAQLAQARAALCGIPTPSLASGLWRTLQVGWNMQLLPAGLASFV-----EV 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13 LLAVLLALLGTTWAEVWPPQLQEQAPMAGALNRKESFLLLSLHNRLRSWVQPPAADMRRL 72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local
                                                                                                                             LLLLLIATGPT-----
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      RWDDELAAFAKAYAQKC---
                                                         DWSDSLAQLAQARAALCGIPTPSLASGLWRTLQVGWNMQLLPAGLASFV-----EV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CNYEPPGN--VKGRK--PYQEGTPCSQCPLGYS-C----ENSLCEPMRNP 196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAYSPGGNWEVNGKTIIPYKKGAWCSLCTASVSGCFKAWDHAGGLCEVPRNP 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VGNWHEEHEYYNESTATCDPNQMCGHYTQVVWSKTERIGCGSHFCETLQGVEEANIHLLV 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LLLLLLIATGPT------TALTEDEKQTMVDLHNQYRAQVSPPASDMLQM 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RWDDELAAFAKAYAQKC------VW-----GHNKERGRRGENLFAITDEGMDVPLA 95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            l Similarity
75; Conserv
                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                 489 AA;
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                                                                                                                                                                                                                                                       Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                           52664 MW; 01C2009712E3C76D CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   52676 MW; 01C207BE12E3CB9D CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10.9%;
                                                                                                                                                                                                                                                                                 10.9%; Score 274.5; DB 11; Length 32.3%; Pred. No. 1.1e-17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16, Created)
16, Last sequence update)
21, Last annotation update)
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                                                                                                                                                                                                                                              22;
                                                                                                                       -----TALTEDEKQTMVDLHNQYRAQVSPPASDMLQM
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
      -VW----
                                                                                                                                                                                                                                                    Mismatches
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-GHNKERGRRGENLFAITDEGMDVPLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AA.
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Q9H0B9
ID Q9H0
AC Q9H0
DT 01-M
DT 01-M
DT 01-J
ON HYPO
GN DKFZ
OS HOMO
OC EUKA
OC MAMM
OX NCBI
RN [1]
RP SEQU
RC TISSS
RA WAMB
DR HSSP
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-JUN-2002 (TrEMBLrel. 21, Created)
01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
Hypothetical 45.2 kDa protein (Fragment).
Hymon sapiens (Human).
                                                                                                                             DKFZP434B044.
Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                               O9HOB8:
01-MAR-2001 (TrEMBLrel. 16, Created)
01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
Hypothetical 55.9 kDa protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Submitted (FEB-2002) to the EMBL/GenBank/DDBJ databases EMBL; BC022399; AAH22399.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Strausberg R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
Wambutt R., Heubner D., Mewe Submitted (JUL-2001) to the EMBL; AL138661; CAB66795.1; HSSP; P04284; 1CFE.
                                                                                                                                                                                                                                                                                    09н0в8
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                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hypothetical protein.
                                                                 TISSUE-TESTIS;
                                                                                                                   NCBI_TaxID=9606;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13 LLAVLLALLGTTWAEVWPPQLQEQAPMAGALNRKESFLLLSLHNRLRSWVQPPAADMRRL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CNYEPPGN--VKGRK--PYQEGTPCSQCPLGYS-C----ENSLCEPMRNP 196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAYSPGGNWEVNGKTIIPYKKGAWCSLCTASVSGCFKAWDHAGGLCEVPRNP 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VSLWFAEGQRYSHAAGECARNATCTHYTQLVWATSSQLGCGRHLCSAGQTAIEA----FV 179
                                                                                                                                                                                                                                                                                                                                                                                                                                    MEEWHHEREHYNLSAATCSPGQMCGHYTQVVWAKTERIGCGSHFCEKLQGVEETNIELLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                      VSLWFAEGQRYSHAAGECARNATCTHYTQLVWATSSQLGCGRHLC----SAGQTAIEAFV 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DWSDSLAQLAQARAALCGIPTPSLASGLWRTLQVGWNMQLLPAGLASFV-----EV 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VGNWHEEHEYYNFSTATCDPNQMCGHYTQVVWSKTERIGCGSHFCETLQGVEEANIHLLV 155
                                                                                                                                                                                                                                                                                                                                                                   CNYEPPGN--VKGKR--PYQEGTPCSQCPS-----GYHCKNSLCEPIGSP
                                                                                                                                                                                                                                                                                                                                                                                                  CAYSPGGNWEVNGKTIIPYKKGAWCSLCTASVSGCFKAWDHAGGLCEVPRNP 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RWDEELAAFAKAYARQC-----VW-----GHNKERGRRGENLFAITDEGMDVPLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LLPLLLLLVATT - - - - - - - - - GPV - GALTDEEKRLMVELHNLYRAQVSPTASDMLHM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      415 AA; 45230 MW; 945069C1607D38E3 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
                                                                                                                                                                                                                                                                                    PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10.8%;
                                                Mewes H.W., Gassenhuber J., Wiemann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28;
                                EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 272; DB 4;
Pred. No. 1.5e-17;
                                                                                                                                                                                                                                                                                    PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                    497
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RESULT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q96K61;
Q1-DEC-2001 (TrEMBLrel. 19, Created)
Q1-DEC-2001 (TrEMBLrel. 19, Last sequence update)
Q1-JUN-2002 (TrEMBLrel. 21, Last annotation update)
CDNA FLJ14489 fis, clone MAMMA1002881, weakly similar to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pfam; PF00188; SCP; 1.
PRINTS; PR0083; VSTPXLIKE.
ProDom; PD000542; Allrgn_V5/Tpx1; 1.
SMART; SM00198; SCP; 1.
PROSITE; PS01010; SCP_AG5_PR1_SC7_2; 1.
Hypothetical protein.
SEQUENCE 497 AA; 55919 MW; 1E7ADDCA
                                                                                                                               TISSUE-MAMMARY GLAND:
ISOGAI T., Ota T., Hayashi K., Sugiyama T., Otsuki T., Su
Nishikawa T., Nagai K., Sugano S., Aotsuka S., Yoshikawa
Matsunawa H., Ishii S., Kawai Y., Saito K., Yamamoto J.,
Nakamura Y., Nagahari K., Masuho Y., Sasaki N.;
"NEDO human cDNA sequencing project.";
Submitted (MAY-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; ANOZ7395; BAB55081.1; -.
InterPro; IPR001283; Allrgn_V5/Tpx1.
InterPro; IPR001283; Allrgn_V5/Tpx1.
InterPro; IPR004043; LCCL_dom.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens (Human).
Eukaryota; Metazoa; C
ProDom; PD000542; Allrgn_V5/Tpx1; 1.
PROSITE; PS01010; SCP_AG5_PR1_SC7_2; UNKNOWN_1.
SEQUENCE 371 AA; 42207 MW; 8D23FBE14F53E85C CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        pathogenesis-related protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q96K61
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InterPro; IPR004043; LCCL_dom.
                                                                                                     Pfam; PF00188; SCP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               391 CYTTVAQLCPFEKPATHCPR 410
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CFMVSSEADTYYRARMKCQR 329
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KTSAVNYMTQVVRCDTKMKDRCKGSTCNRYQCPAGCLNHKAKIFGTL----FYESSSS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SGLWRTLQVGWNMQLLPAGLASFVEVVSLWFAEGQRYSHA-AGEC-----ARNATCTH 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ICRAAIHYGILDDKGGLVDITRNGKVPFFVKSERHGVQSLSKYKPSSSFMVSKVKVQDLD
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10.2%;
25.8%;
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38; Pred. No. 4.8e-16;
45; Mismatches 126;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  371 AA.
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                                                                                                                                                                                                                                                                                                                                                             J., Wakamatsu
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                                                                                                                                                                                                                RA Kawai J., Shihaqawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,
RA Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
RA Alzawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA Salto T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Salto R.,
RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA Kleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,
RA Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA Schriml L.M., Staubli F., Suzuki R., Tomita M., Gariboldi M.,
RA Schriml L.M., Bult C., Fletcher C., Fujita M., Gariboldi M.,
RA Sakai K., Okido T., Bult C., Fletcher C., Fujita M., Gariboldi M.,
RA Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA Hyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
RA Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
RA Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA Suzuki H., Toyo-oka K., Wang K.H., Weitz C., Whitteker C., Wilming L.,
RA Wyshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
RA Wyshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
Strausberg R.;
Submitted (MAR-2002) to the EMBL/GenBank/DDBJ
EMBL; AKO10768; BAB27188.1; -.
EMBL; BC025083; AAH25083.1; -.
HSSP; P04284; 1CFE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRAIN-C57BL/6J; TISSUE-EMBRYONIC STEM CELLS; MEDLINE-21085660; PubMed-11217851;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
2410114014Rik protein (RIKEN cDNA 2410114014 gene).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutereosco
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                              "Functional annotation of a full-length mouse cDNA collection.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=10090
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         233 RMSCQNH------GRLNISTCHCH-CPPGYTGRYCQVRCSLQCVHGRFREEECS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            162 YTQIVWATTNKIGCAVNTCRKMTVWGEVWENAV-YFVCNYSPKGNW--IGEA--PYKNGR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               108 VSIGQNLGAHWGRYRSPG-----FHVQSWYDEVKDYTYPYPSECNPWCPERCSGPMCTH
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      50 AIPREDKEEILMLHNKLRGQVQPQASNMEYMTWDDELEKSAAAWASQCIWEHG-PT-SLL 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               42 ALNRKESFLLLSLHNRLRSWVQPPAADMRRLDWSDSLAQLAQARAALC----GIPTPSLA 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity
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                                                                                                                                                                            409:685-690(2001).
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                                                                                                                                                                                                                                                                                                             InterPro; 1800-181 SCP; 1. Pfam; PF00188; SCP; 1. PRINTS; PR00837; V5TPXLIKE. PRODOM; PD000542; Allrgn_V5/Tpxl; 1. SMART; SM00198; SCP; 1. SMART; SM00198; SCP; 1. SCP_AG5_PR1_SC7_2; 1. PR0SITE; PS01010; SCP_AG5_PR1_SC7_2; 1. PR 4: Leng-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            043692;
01-JUN-1998 (TrEMBLrel. 06, Created)
01-JUN-1998 (TrEMBLrel. 06, Last seq
01-JUN-2002 (TrEMBLrel. 21, Last ann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Biochim. Biophys. Acta 1395:202-208(1998).
EMBL; D45027; BAA25066.1; -.
HSSP; P04284; ICFE.
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brain cancer cells.";
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InterPro; IFR001283; Allrgn_V5/Tpx1.
Pfam; PF001388; SCP; 1.
PRINTS; PR00837; V5TPXLIKE.
PRODDM; PD000542; Allrgn_V5/Tpx1; 1.
SMART; SM00198; SCP; 1
PROSITE; PS01009; SCP_AG5_PR1_SC7_1;
PROSITE; PS01009; SCP_AG5_PR1_SC7_1;
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Kanamori T., Miyazaki K.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "cDNA cloning of a novel trypsin inhibitor with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=98146272; PubMed=9473672;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      25 kDa trypsin inhibitor
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112 HGPSYLLRFL--GQNLSVRTGRYRSILQLVKPWYDEVKDYAFPYPQDCNPRCPMRCFGPM 169
                                                          102 -----RTLQVGWNMQLLPAGLASFVEVVSLWFAEGQRYSHAAGE-----CARNA---T 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              106
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                                                                                                                                                                                  43 LNRKESFILLSLHNRLRSWVQPPAADMRRLDWSDSLAQLAQARAALCGIPTPSLASGLW- 101
                                                                                                                                                                                                                                                                                      Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14 LAVILLALIGTTWAEVWPPQLQEQAPMAGALN------RKESFL--LISLHNRLR 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local
                                                                                                                       ISQNDMIAILDYHNQVRGKVFPPAANMEYMVWDENLAKSAEAWAATC-----IWD 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FVCAYSPGGNWEVNGKTIIPYKKGAWCSLCTASVSGCFKAWDHAGGLCEVPR 229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FSVSSAISAWYEEIKHYDFSTRKCRH--VCGHYTQVVWADSYKLGCAVQLCPNGAN----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ASFVEVVSLWFAEGQRYSHAAGECARNATCTHYTQLVWATSSQLGCGRHLCSAGQTAIEA 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SKVSPPARNMLYMSWDPKLAQIAKAWTKSCEFKHNPQLHSRIHPNFTALGENIWLGSLSI 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SWVQPPAADMRRLDWSDSLAQLAQARAALCGIP-TPSLASGLWRTL-QVGWNMQLLPAGL 117
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                                                                                                                                                                                                                                                                                      Similarity
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.; 29128 MW; A836ECCB3BACD20A CRC64;
                                                                                                                                                                                                                                                                         10.1%; Score 254.5; DB 4 29.2%; Pred. No. 3.9e-16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10.1%;
                                                                                                                                                                                                                                            33; Mismatches
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Last annotation updat
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        similarity
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Best Local
        Q9H3Y0;
01-MAR-2001
01-MAR-2001
01-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.

Smith D.M., Collins-Racie L.A., Lavallie E.R., Gamer L., Rober Marigo V.A., Copeland N.G., Jenkins N.A., McCoy J., Tabin C.J.

"A novel cysteine-rich secreted protein (CRISP) family member, CocoaCrisp, provides insight into the process of septation in developing chicken midbrain.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q98ST5;
01-JUN-2001 (TrEMBLrel.
01-JUN-2001 (TrEMBLrel.
01-JUN-2002 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SMART; SM00198; SCP; 1.

PROSITE; PS01010; SCP_AG5_PR1_SC7_2; 1.

SEQUENCE 523 AA; 59049 MW; 3AF283C19DC3C55F CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Submitted (DEC-2000) to the EMBL/GenBank/DDBJ databases. EMBL; AF329199; AAK16497.1; -. HSSP; P04284; ICFE. InterPro; IPR001283; Allrgn_V5/Tpx1. InterPro; IPR004043; LCCL_dom. Pfam; PF00188; SCP; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gallus gallus (Chicken).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasiani
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRINTS; PR00837; V5TPXLIKE.
ProDom; PD000542; Allrgn_V5/Tpx1; 1.
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                                                                                                                    Q9H3Y0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LLSLHNRLRSWVQPPAADMRRLDWSDSLAQLAQARAALC----GIPTPSLASGLWRTLQV 106
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                                                                                                                                                                                                                                                          GSEDSEKNEVISTQQMSQIVSCEVRLRDQCKGTTCNRYECPAGC
                                                                                                                                                                                                                                                                                                          GR-----YCQVRCSLQCVHGRFREEECSCVC 282
                                                                                                                                                                                                                                                                                                                                                                GGCRENLCYREGS-----ERPYSPHEPEEETNEIERQRSKAQDATAQSRPRTHSPSGST
                                                                                                                                                                                                                                                                                                                                                                                                                      G-----RMSCQNHGRLNISTCHCHCPPGYT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SRIGCAINLCHNMNIWGQIWPKAVYLVCNYSPKGNWWGHA----PYKPGRPCSACPPSFG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GWNMQLLPAGLASFVEVVSLWFAEGQRYSHA-AGEC-----ARNATCTHYTQLVWATS 158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ILDLHNKLRGQVYPPASNMEYMTWDTELERSAESWAETCLWEHG--PASLLPSIGQNLGA 122
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        (TrEMBLrel.
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        Last sequence update)
Last annotation update)
                                                              Created)
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Pred. No. 1.1e-15;
26; Mismatches 106;
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n C.J.;
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Best Local (
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InterPro; IPR001283; Allrgn_V5/Tpx1.

Pfam; PF00188; SCP; 1.

PRINTS; PR00837; V5TPX1KE.

ProDom; PD000542; Allrgn_V5/Tpx1; 1.

SMART; SM00198; SCP; 1.

PROSITE; PS01010; SCP_AG5_PR1_SC7_2; 1.

PROSITE; PS01010; SCP_AG5_PR1_SC7_2; 1.
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098ST6; TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence of the control of the contr
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pfam; pF00188; SCP; 1.
pRINTS; PR00837; V5TPXLIKE.
proDom; PD000542; Allrgn_V5/Tpx1; 1.
SMART; SM00198; SCP; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   {\tt DJ881L22.3} (novel protein similar to a trypsin inhibitor). {\tt DJ881L22.3}.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SugarCrisp.
Gallus gallus (Chicken).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SMART; SM00198; SCP; SEQUENCE 253 AA;
                                                                                                                                                                                              chicken embryo.";
Mech. Dev. 102:23-226(2001).
EMBL; AF329195; AAK16493.1; -.
HSSP; P04284; ICFE.
                                                                                                                                                                                                                                                                                                                                                                                          Smith D.M., Collins-Racie L.A., Marigo V.A., Roberts Hartmann C., Schweitzer R., LaVallie E.R., Gamer L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                TISSUE=STAGE 26 LIMB BUD; MEDLINE=21184121; PubMed=11287197;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens (Human).
                                                                                                                                                                                                                                                                                                          Tabin C.J.; "Cloning and expression of a novel cysteine-rich secreted premity member expressed in thyroid and pancreatic mesoderm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Archosauria; Aves; Neognathae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Lloyd D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID=9031;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      51 LLSTHNRTRSWVQPPAADMRRIDWSDSLAQLAQARAALCGIPTPSLASGLWR-----TL 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QVGWNMQLLPAGLASFVEVVSLWFAEGQRY-----SHAAGECARNATCTHYTQLVW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SYQGSCNSNMCFK 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SVSG-----CFK 216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ASSNRLGCATHTCSSISVWGNTWHRAAYLVCNYAIKGNW--IGES--PYKMGKPCSSCPP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATSSQLGCGRHLCSA----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             YVGQNLSIHSGQYRSVVDLMKSWSEEKWHYLFPAPRDCNPHCPWRC-DGPTCSHYTQMVW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 Similarity
67; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28605 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       to the EMBL/GenBank/DDBJ databases 4190.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10.0%; Score 253; 34.7%; Pred. No. 5 tive 21; Mismatch
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -GQTAIEA--FVCAYSPGGNWEVNGKTIIPYKKGAWCSLCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Last sequence update)
Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28976C6F32E3887E CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Galliformes; Phasianidae; Phasianinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                         cysteine-rich secreted protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3e-16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           update)
                                                                                                                                                                                                                                                                                                                                                                                                                         Roberts D.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     63;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 253;
           CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -- IWAHGPSQLMR 115
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Gaps

9;

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Matches
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Best Local :
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                    MGD; MGI:1934659; Pi15.
InterPro; IPR001283; Allrgn_V5/Tpx1.
Pfam; PF00188; SCP; 1.
PRINTS; PR00837; V5TPXLIKE.
ProDom; PD000542; Allrgn_V5/Tpx1; 1.
SMART; SM00198; SCP; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-JUN-2001 (TrEMBLrel. 17, 01-JUN-2001 (TrEMBLrel. 17, 01-JUN-2002 (TrEMBLrel. 21,
                                                                                                                                                                                                                                                                                                                                                                PROSITE; PS01010; SCP_AG5_PR1_SC7_2; 1
SEQUENCE 258 AA; 29150 MW; 2FA994A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Cloning and expression of a novel cysteine-rich secreted protein family member expressed in thyroid and pancreatic mesoderm within
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tabin C.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Smith D.M., Collins-Racie L.A., Marigo V.A., Roberts D.J., Davis N.M., Hartmann C., Schweitzer R., LaVallie E.R., Gamer L., McCoy J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A. MEDLINE-21184121; PubMed-11287197;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q99MM7;
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                                                                                                                                      112
                    200 KGAWCSLCTASVSG----CF 215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    147 CTHYTQLVWATSSQLGCGRHLC------SAGQTAIEAFVCAYSPGGNWEVNGKTIIPYK 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          225 VGVPCSACPPSYGG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            200 KGAWCSLCTASVSGCFKAWDHAGGLCEVPRNPCRMSCQNHGRLNISTCHCHCPPGYTGRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            112 HGPSYLLRFL--GQNLSVRTGRYRSILQLVKPWYDEVKDYAFPYPQDCNPRCPMRCYGPM 169
                                                                                                                                                                                                              62
                                                                                                                                                                                                                              43 LNRKESFLLLSLHNRLRSWVQPPAADMRRLDWSDSLAQLAQARAALCGIPTPSLASGLW- 101 ::: : : : | | | | | | | | | | | : | | : | | : | | : | | : | | : | | | | | |
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                                                                                                                                                                                                                                                                                                            Local Similarity
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                                                    CTHYTQMVWATSNRIGCAIHTCQNMNVWGSVWRRAV-YLVCNYAPKGNW--IGEA--PYK
                                                                                        CTHYTQLVWATSSQLGCGRHLC-----SAGQTAIEAFVCAYSPGGNWEVNGKTIIPYK 199
                                                                                                                              HGPSYLLRFL--GQNLSVRTGRYRSILQLVKPWYDEVKDYAFPYPQDCNPRCPMRCFGPM 169
                                                                                                                                                                    -----RTLQVGWNMQLLPAGLASFVEVVSLWFAEGQRYSHAAGE-----CARNA---T 146
                                                                                                                                                                                                          ISQNDMIAILDYHNQVRGKVFPPAANMEYMVWDENLAKSAEAWAATC-----IWD 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTHYTOMVWATSNRIGCAIHTCONMNVWGSVWRRAV-YLVCNYAPKGNW--IGEA--PYK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -----RTLQVGWNMQLLPAGLASFVEVVSLWFAEGQRYSHA-AGEC-----ARNAT 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ISQNDMIAILDYHNQVRGKVFPPASNMEYMVWDETLAKSAEAWAATC-----IWD 111
                                                                                                                                                                                                                                                                                          65;
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                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                        10.0%;
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                                                                                                                                                                                                                                                                                          31;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Last sequence update)
Last annotation updat
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Created)
                                                                                                                                                                                                                                                                                                        Score 252; DB 11; Length 258; Pred. No. 6.8e-16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -----SCTDN------LCFPGVTSNY
                                                                                                                                                                                                                                                                                                                                                                2FA994A9A2562640 CRC64;
                                                                                                                                                                                                                                                                                        Mismatches
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                                                                                                                                                                                                                                                                                        60;
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                                                                                                                                                                                                                                                                                    Indels 46;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  71;
                                                                                                                                                                                                                                                                                    Gaps
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ŚEQUENCE FROM N.A.

ŚTRAIN-C57BL/6J; TISSUE-PANCREAS;

MEDLINE-21085660; PubMed-11217851;

MEDLINE-2108560; PubMed-11217851;

Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka Aizawa K., Izawa M., Nishi K., Bono H., Kasukawa T., Saito
                                                                                                                                                                1810049K24RIK.
1810049K24RIK.
Mus musculus (Mouse).
Mus musculus (Mouse).
Metazoa; Chordata; //
heria; Rodentia;
                                                                                                                                                                                                                                                                        Q9D2R3; PRELIMINARY; PRT;
Q9D2R3;
01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last seq
01-JUN-2002 (TrEMBLrel. 21, Last ann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROSITE; PS0100342; Allren_v5/Tpx1; 1.

PROSITE; PS01038; OPSIN; UNKNOWN_1.

PROSITE; PS011009; SCP_AG5_PR1_SC7_1; UNKNOWN_1.

PROSITE; PS01010; SCP_AG5_PR1_SC7_2; UNKNOWN_1.

SEQUENCE 233 AA; 26118 MW; C6BDD4B8DB5B91D2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submitted (SEP-2001) to the EMBL/GenBank/DDBJ databases EMBL; BcO14603; AAHI4603.1; .
InterPro; IPR001283; Allrgn_V5/Tpx1.
InterPro; IPR001760; Opsin.
Pfam; PF00188; SCP; 1.
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01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
Similar to RIKEN CDNA 1700011E04 gene.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Strausberg R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE=TESTIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutele
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (Human)
                                                                                                                                                                                                                                                            1810049K24Rik protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            203 CKNP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  154 AMCPNLGGASTAIFVCNYGPAGNF----ANMPPYVRGESCSLCSKE-EKCVK-----NL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    166 HLC-SAGQTAIEAFVCAYSPGGNWEVNGKTIIPYKKGAWCSLCTASVSGCFKAWDHAGGL 224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            108 WNMQLLPAGLASFY--EVVSLWFAEGQRYSHAAGECARNATCTHYTQLVWATSSQLGCGR 165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  225 VGVPCSSCPPSYGGACTDNLCF
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CEVP 228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ENIWL - - GGIKSFTPRHAITAWYNETQFYDFDSLSCSR - - VCGHYTQLVWANSFYVGCAV 153
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  63;
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                                                                                                                                                                                                                                                                            Last sequence update)
Last annotation update)
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Search completed: December 29, 2002, 02:25:36 Job time : 94 secs
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Nature 409:685-690(2001),
EMBL; AK019034; BAB31519.1; -
HSSP; P04284; ICFE.
MGD; MGI:1926142; 1810049K24Rik.
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ProDom; PD000542; Alirgn_V5/Tpx1; 1.

SMART; SM00198; SCP; 1.

PROSITE; PS01010; SCP_AG5_PR1_SC7_2; 1.

SEQUENCE 434 AA; 48593 MW; C25067E814647AC0 CRC64;
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InterPro; IPR004043; LCCL_dom.
Pfam; PF00188; SCP; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         162
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     154 VWATSSQLGCGRHLCSA----GQTAIEA--FVCAYSPGGNWEVNGKTIIPYKKGAWCSLC 207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       102 RTLQVGWNMQLLPAGLASFVEVVSLWFAEGQRYSHA-AGEC-----ARNATCTHYTQL 153
                                                                                                                                                                                      270 RAAIHYG 276
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               54 LHNRLRSWVQPPAADMRRLDWSDSLAQLAQARAALCGIPTPSLASGLW------ 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2 LHNKLRGQVYPPASNMEHMTWDEELERSAAAWAHRC------LWEHGPAGLLRSIG 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PSSYGGGCLNNLCHREKPHKHKPEVDMMNEVESPPAPEETHVWVQPRVIKTKKTPVINFM 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TASVSG-----CFKAWDH-----AGGLCEVPRNPC-------
                                                                                                                                                                                                                                                                                                                                                                       TQVVHCDTKMKDSCKG-----STCNRYQCPAGCLSNKAKVFGSL-----FYESSSSIC 269
                                                                                                                                                                                                                                                                                                                                                                                                                                                           -----RMSCQNHGRLNISTCHCH-CPPGYTGRYCQVRCSLQCVHGRFREEECS-C 280
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Maximum Match 100%
Listing first 45 summaries
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Gapop 10.0 , Gapext 0.5
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Copyright (c) 1993 - 2002 Compugen Ltd.
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757.863 Million cell updates/sec
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMART

Result	Score 2529	Query Match Length DB	ength	0 '	ID AAY06483	Descriptior Human tumo
ب ر	2529	100.0	455	20	AAY06483	Humar
u N	2529	100.0	4 5 5 5	20	AAY17828	Human
4 (2447.5	96.8	446	20	AAY41266	Human T139 protein
տ	2447.5	96.8	446	22	AAE06575	Human
σ	2447.5	96.8	446	22	AAB64994	Human
7	2447.5	96.8	446	23	AAE21077	Human
œ	2426.5	95.9	446	22	AAM93326	Humar
φ	2315.5	91.6	420	20	AAY41267	Humar
10	2315.5	91.6	420	23	AAE21078	Human

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Novel human diagno Novel human diagno Human protease and Novel human diagno Human EST encoded Novel human diagno Human EST encoded Novel human diagno Human polypeptide Human polypeptide Human polypeptide Human polypeptide Human polypeptide Human protase antit Human pR0328 prote Human pR0328 prote Human pR0328 prote Human protease-inh Human novel trypsi Human protease-inh Human protein, Human novel trypsi Human full-length Human protein sequ Human protein sequ Human protein sequ Human protein sequ Human novel trypsi Frypsin inhibitory Mouse testes speci Prostate cancer-as Protein encoded Human EST encoded Human EST encoded	Novel human diagno

ALIGNMENTS

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Peptide
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27..455
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05-JAN-1998;
29-APR-1998;
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10-NOV-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MLHPETSPGRGHLLAVLLALLGTTWAEVWPPQLQEQAPMAGALNRKESFLLLSLHNRLRS
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                                                                        DSDFETRNFWIGLTYKTAKDSFRWATGEHQAFTSFAFGQPDNHGLVWLSAAMGFGNCVEL 420
                                                                                                                                 TCDLRIDGDCFMVSSEADTYYRARMKCQRKGGVLAQIKSQKVQDILAFYLGRLETTNEVT
                                                                                                                                                                                                                                                                                                           VEVVSLWFAEGQRYSHAAGECARNATCTHYTQLVWATSSQLGCGRHLCSAGQTAIEAFVC
                                                                                                                                                                                                                                                                                                                                                                               WVQPPAADMRRLDWSDSLAQLAQARAALCGIPTPSLASGLWRTLQVGWNMQLLPAGLASF 120
                                                                                                                                                                                                                                                                                                                                                                                                          sequence represents human PRO347 (UNQ306), a 50.5 5 kDa protein 8.44) encoded by the novel cDNA clone DNA44176 (see AAX87260).
                            QASAAFNWNDQRCKTRNRYICQFAQEHISRWGPGS 455
                                                                                                                                                                                         RLNISTCHCHCPPGYTGRYCQVRCSLQCVHGRFREEECSCVCDIGYGGAQCATKVHFPFH
                                                                                                                                                                                                                                                  AYSPGGNWEVNGKTIIPYKKGAWCSLCTASVSGCFKAWDHAGGLCEVPRNPCRMSCQNHG
                                                                                                                                                                                                                                                                                            VEVVSLWFAEGQRYSHAAGECARNATCTHYTQLVWATSSQLGCGRHLCSAGQTAIEAFVC
                                                                                                                                                                                                                                                                                                                                                  WVQPPAADMRRLDWSDSLAQLAQARAALCGIPTPSLASGLWRTLQVGWNMQLLPAGLASF
QASAAFNWNDQRCKTRNRYICQFAQEHISRWGPGS
                                                                                                                                                                                                                                   AYSPGGNWEVNGKTIIPYKKGAWCSLCTASVSGCFKAWDHAGGLCEVPRNPCRMSCQNHG
                                                       DSDFETRNFWIGLTYKTAKDSFRWATGEHQAFTSFAFGQPDNHGLVWLSAAMGFGNCVEL
                                                                                                                  TCDLRIDGDCFMVSSEADTYYRARMKCQRKGGVLAQIKSQKVQDILAFYLGRLETTNEVT
                                                                                                                                                                           RLNISTCHCHCPPGYTGRYCQVRCSLQCVHGRFREEECSCVCDIGYGGAQCATKVHFPFH
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
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98US-0070440.

98US-0083500.

98US-0086414.

98US-0088742.

98US-0107783.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 2529; DB 20; Pred. No. 1.7e-183;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Lawrence DA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 455;
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RESULT 2
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12-DEC-1997;
16-DEC-1997;
16-DEC-1997;
16-DEC-1997;
17-DEC-1997;
17-DEC-1997;
                                                                                                                                                                                                                                                                                                                             The present invention describes nucleic acids encoding PRO secreted and transmembrane proteins used therapeutically. The PRO proteins have cytostatic, anti-inflammatory, anti-proliferative and immunosuppressive activity. The proteins and polynucleotides can be used in therapy, identification of homologues, raising antibodies and design of probes and primers. They can be used in a range of diseases related to proteins that they have homology with, e.g. a PRO protein having homology to complement proteins may be used in inflammatory responses.
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11-DEC-1
11-DEC-1
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                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 12; Fig 23; 123pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Nucleic acids encoding
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09-FEB-1998;
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MLHPETSPGRGHLLAVLLALLGTTWAEVWPPQLQEQAPMAGALNRKESFLLLSLHNRLRS
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                                               WVQPPAADMRRLDWSDSLAQLAQARAALCGIPTPSLASGLWRTLQVGWNMQLLPAGLASF 120
                                                                                           MLHPETSPGRGHLLAVLLALLGTTWAEVWPPQLQEQAPMAGALNRKESFLLLSLHNRLRS
                                                                                                                                                                                            455;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRO protein; tumour necrosis factor family; TNF; cytokine; ed protein; transmembrane protein; inflammation disorder.
                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAX80053.
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                                                                                                                                                                                                                                                                                        455 AA;
                                                                                                                                                                                         Conservative
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97US-0069702.
97US-0069870.
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98US-0074092
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97US-0068017
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                                                                                                                                                                                                                Score 2529;
Pred. No. 1
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                                                                                                                                                                                                                1.7e-183;
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                                                                     Modified-site
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                                                                                                                                                                                                                                                                                     PRO201; PRO292; PRO327; PRO1265; PRO344; PRO343; PRO347; PRO357; PRO715; PRO1017; PRO1112; PRO509; PRO853; PR0882; tumour cell;
                                                                                                                                                     Modified-site
                                                                                                                                                                    Modified-site
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                                                                                                                                                                                                                                                                   Homo sapiens.
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                                                                                                                                                                                                                                                                                                                                                                AAY93690 standard;
                                                                                                                                                                                    Modified-site
                                                                                                                                                                                                                                           Peptide
                                                                                                                                                                                                                                                                                tumourigenesis; cancer; neoplastic cell growth;
                                                                                                                                                                                                                                                                                                               Amino acid sequence of novel polypeptide PRO347
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                                                                                                                                                                                                                                                                                                                                                                                                                QASAAFNWNDQRCKTRNRYICQFAQEHISRWGPGS 455
                                                                                                                                                                                                                                                                                                                                                                                                                                  RLNISTCHCHCPPGYTGRYCQVRCSLQCVHGRFREEEECSCVCDIGYGGAQCATKVHFPFH
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                       /note=
398..40
                                      /note= "I
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287..2
                                                                                                     213.
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45..49
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                                                                                                                     204.
                                                                                                                                                                                    99..105
                                                                                                                                                                    131..137
                                                                                                                                                                                                                                                   Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                Protein; 455
                       .404
                                                                                     . 247
                                                                                                                                     . 207
             "N-myristoylation site"
                            "N-myristoylation site"
                                                                           "N-glycosylation site"
                                                                                                                                                                                                                 "N-myristoylation site"
                                            "N-myristoylation site"
                                                           "N-myristoylation site"
                                                                                            "N-myristoylation site"
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                                                                                                                                           "N-glycosylation site"
                                                                                                                                                           "N-myristoylation site"
                                                                                                                                                                         "N-myristoylation site"
                                                                                                                                                                                                 "cAMP- and cGMP-dependent
                                                                                                                                                                                          phosphorylation site"
                                                                                                          prokaryotic membrane lipoprotein attachment site
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                                                                                                                                                                                                                                                                               cell proliferation
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Matches 455;
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Best Local
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08-MAR-1999

02-JUN-1999

01-SEP-1999

15-SEP-1999

30-NOV-1999

30-NOV-1999

01-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present sequence encodes a novel human polypeptide. The specification describes novel polypeptides designated PRO201, PRO292, PRO327, PRO1265, PRO344, PRO347, PRO347, PRO3157, PRO1112, PRO1059, PRO343 and PRO882. These genes are amplified in the genome of tumour cells. The polypeptides are believed to contribute to tumourigenesis. The polypeptides are useful target for the identification of certain cancers, and may act as predictors of the prognosis of tumour treatment. Antibodies against these polypeptides are useful in the treatment and diagnosis of neoplastic cell growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 61; Fig 14; 220pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New anti-polypeptide antibody useful in the treatment and neoplastic cell growth and proliferation - \,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N-PSDB; AAA46918.
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                                                                                                                                                                                                                                                                                                                                       121 VEVVSLWFAEGQRYSHAAGECARNATCTHYTQLVWATSSQLGCGRHLCSAGQTAIEAFVC
                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                    61 WVQPPAADMRRLDWSDSLAQLAQARAALCGIPTPSLASGLWRTLQVGWNWQLLPAGLASF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 MLHPETSPGRGHLLAVLLALLGTTWAEVWPPQLQEQAPMAGALNRKESFLLLSLHNRLRS
                  DSDFETRNFWIGLTYKTAKDSFRWATGEHQAFTSFAFGQPDNHGLVWLSAAMGFGNCVEL 420
                                                                                               TCDLRIDGDCFMVSSEADTYYRARMKCQRKGGVLAQIKSQKVQDILAFYLGRLETTNEVT
                                                                                                                                                                                                                                   AYSPGGNWEVNGKTIIPYKKGAWCSLCTASVSGCFKAWDHAGGLCEVPRNPCRMSCONHG
DSDFETRNFWIGLTYKTAKDSFRWATGEHQAFTSFAFGQPDNHGLVWLSAAMGFGNCVEL
                                                                        TCDLRIDGDCFMYSSEADTYYRARMKCQRKGGVLAQIKSQKVQDILAFYLGRLETTNEYT
                                                                                                                                                      RLNISTCHCHCPPGYTGRYCQVRCSLQCVHGRFREEECSCVCDIGYGGAQCATKVHFPFH
                                                                                                                                                                             RLNISTCHCHCPPGYTGRYCQVRCSLQCVHGRFREEECSCVCDIGYGGAQCATKVHFPFH
                                                                                                                                                                                                                                                                                                                  VEVVSLWFAEGQRYSHAAGECARNATCTHYTQLVWATSSQLGCGRHLCSAGQTAIEAFVC
                                                                                                                                                                                                                                                                                                                                                                                                 WVQPPAADMRRLDWSDSLAQLAQARAALCGIPTPSLASGLWRTLQVGWNMQLLPAGLASF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MLHPETSPGRGHLLAVLLALLGTTWAEVWPPQLQEQAPMAGALNRKESFLLLSLHNRLRS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 455 AA;
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ilarity 100.0%;
Conservative (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US20111.
99WO-US21090.
99WO-US2813.
99WO-US28409.
99WO-US28301.
99WO-US28565.
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Pred. No. 1.7e-183;
0; Mismatches 0;
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  Вþ
                                                δÃ
                                                                                                                                                                                                                                                      spermatogenesis, e.g. as a contraceptive to decrease spermatogenesis or to treat disorders related to defects in sperm-egg fusion. They may also be useful to treat testicular disorders e.g. testicular cancer. The polypeptides may be used to identify selectively binding compounds which compounds modulating polypeptide activity. The polynucleotides are useful for producing probes or primers that selectively hybridize to the coplynucleotides which may be useful for detecting the polypucleotides in sample, gene mapping; identifying cells or tissues expressing aberrant corresponding to the selectively hybridize to the coplynucleotides which may be useful for detecting the polynucleotides in comple, gene mapping; identifying cells or tissues expressing aberrant condentify subjects at risk for or having a disorder associated with T139 copression or activity and to monitor therapeutic interventions; and for producing antisense sequences for therapeutic administration to modulate or content to the polynucleotides in the polynuc
                                                                                                                                                       Query Match
                                                                                                         Matches 442;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; T139 polypeptide; immune system disorder; spermatogenesis; sperm-egg fusion; testicular disorder; testicular cancer; gene mapping.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAY41266 standard; Protein; 446 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sperm-egg fusion;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            31-JAN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   prophylactically to treat/prevent disorders associated with aberrant T139 expression or activity, especially proliferative or differentiative disorders, e.g. of the immune system. They can be used to modulate spermatogenesis, e.g. as a contraceptive to decrease spermatogenesis or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This represents a human T139 polypeptide. The T139 polypeptide can be expressed by standard recombinant methodology. The T139 cDNA insert is deposited with ATCC under accession number 98694. The T139 polypeptides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human T139 nucleic acids and polypeptides, useful for treating proliferative disorders associated with aberrant T139 expression
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       23-APR-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (MILL-) MILLENNIUM BIOTHERAPEUTICS INC
                                                                                                                                                                                                             Sequence
                                                                                                                                 Local Similarity
polynucleotides can be administered therapeutically or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QASAAFNWNDQRCKTRNRYICQFAQEHISRWGPGS
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DB; AAZ23299, AAZ23300.
                                                                                                                                                                                                                446 AA;
                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US08896
                                                                                                                                    96.8%;
97.1%;
                                                                                                                                    Score 2447.5;
Pred. No. 2.4e
                                                                                                               ed. No. 2.46 Mismatches
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                                                                                                                 2.4e-177;
hes 3;
                                                                                                                                                                  DB 20; Length 446;
                                                                                                                 9;
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RESULT 5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAE06575 standard; Protein; 446 AA.
                                                                                                                                          06-JAN-2000; 2000JP-0000585.

06-JAN-2000; 2000JP-0000588.

11-JAN-2000; 2000JP-0022299.

03-FEB-2000; 2000JP-0026862.

03-MAR-2000; 2000JP-0058367.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Key
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                                                                                                                                                                                                                                                                                                                                                          WO200149728-A2
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WPI; 2001-418355/44
                                                                                                                                                                                                                                                                        28-DEC-2000; 2000WO-JP09359
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Peptide
                                                                                                   (PROT-)
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                                                                                  (SAGA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                protein having hydrophobic domain, HP10760.
                                                                                PROTEGENE INC.
SAGAMI CHEM RI
                                         Kimura T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    antiinfertility; antiinflammatory.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
1..27
                                                                                                                                                                                                                                                                                                                                                                                                      /note=
                                                                                                                                                                                                                                                                                                                                                                                                                           28..446
                                                                                                                                                                                                                                                                                                                                                                                                                                             /label= Signal_peptide
                                                                                      RES CENT
                                                                                                                                                                                                                                                                                                                                                                                                   "Mature human protein with hydrophobic domain"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches 442;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local :
           AAB64994 standard; protein; 446 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present sequence is human protein with hydrophobic domain, HP10760. The polynucleotide and polypeptide of the invention may be used in the prevention, diagnosis and treatment of diseases associated with inappropriate polypeptide expression. The polynucleotides may be used to produce the polypeptide, by inserting the nucleic acids into a host cell and culturing the cell to express the protein. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human proteins with hydrophobic domains and the nucleic acids encoding them, useful for preventing diagnosing and treating e.g. cancer, Alzheimer's and inflammation -
                                                                                                                                                               421
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                                                                                                                                      QASAAFNWNDQRCKTRNRYICQFAQEHISRWGPGS 455
                                                                                                                                                                                                                                                                                                        TCDLRIDGDCFMVSSEADTYYRARMKCQRKGGVLAQIKSQKVQDILAFYLGRLETTNEVT
                                                                                                                                                                                                                                                                                                                                                                                          RLNISTCHCHCPPGYTGRYCQVRCSLQCVHGRFREEEECSCVCDIGYGGAQCATKVHFPFH
                                                                                                                                                                                                                                                                                                                                                                                                                                                   AYSPGGNWEVNGKTIIPYKKGAWCSLCTASVSGCFKAWDHAGGLCEVPRNPCRMSCONHG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VEVVSLWFAEGQRYSHAAGECARNATCTHYTQLVWATSSQLGCGRHLCSAGQAAIEAFVC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VEVVSLWFAEGQRYSHAAGECARNATCTHYTQLVWATSSQLGCGRHLCSAGQTAIEAFVC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WVQPPAADMRRLDWSDSLAQLAQARAALCGIPTPSLASGLWRTLQVGWNMQLLPAGLASF
                                                                                                                                                                                                                      DSDFETRNFWIGLTYKTAKDSFRWATGEHQAFTSFAFGOPDNHGLVWLSAAMGFGNCVEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WVQPPAADMRRLDWSDSLAQLAQARAALCGIPTPSLASGLWRTLQVGWNMQLLPAGLASF 120
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                                                                                                                                                                                                  DSDFETRNFWIGLTYKTAKDSFRWATGEHQAFTSFAFGQPDNH----
                                                                                                                                                                                                                                                                                  TCDLRIDGDCFMVSSEADTYYRARMKCQRKGGVLAQIKSQKVQDILAFYLGRLETTNEVI
                                                                                                                                                                                                                                                                                                                                                                    RLNISTCHCHCPPGYTGRYCQVRCSLQCVHGRFREEECSCVCDIGYGGAQCATKVHFPFH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1; Page 230-232; 563pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          446 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       96.8%;
97.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 2447.5; DB 22; Length 446;
Pred. No. 2.4e-177;
1; Mismatches 3; Indels 9;
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                                                                                                                                                                                                                                                                            Вb
                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                      (including leukemia), autoimmune diseases, allergies, inflammaterist rejection, hyperproliferation, cardiovascular diseases (particularly critical limb ischemia and coronary disease) and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present invention relates to 26 secreted human proteins. The proteins may be used in the prevention, diagnosis and treatment diseases associated with inappropriate polypeptide expression. For example, they may be used in gene therapy or in vaccines. Typical of diseases which are potentially treatable are cancers.
                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 1; Page 446-448; 530pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Secreted protein; gene therapy; vaccine; cancer; leukemia; autoimmune disease; allergy; inflammation; graft rejection hyperprolliferation; cardiovascular; infection.
                                                                                                                                                                                                                                                                                                                                                                                                                 infectious
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Nucleic acids encoding 26 human secreted polypeptides, useful e.e proventing, diagnosing and/or treating cancers and for promoting
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Lafleur DW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ruben SM,
    301
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                                                                                                                                                                           121 VEVVSLWFAEGQRYSHAAGECARNATCTHYTQLVWATSSQLGCGRHLCSAGQTAIEAFVC 180
                                                                                                                                                                                                                                                                                                                                                                                                                         nvolving abnormal angiogenesis, neurodegeneration and/or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (HUMA-) HUMAN GENOME SCI INC.
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                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                       Local Similarity
                                                                                                                       AYSPGGNWEVNGKTIIPYKKGAWCSLCTASVSGCFKAWDHAGGLCEVPRNPCRMSCQNHG
            TCDLRIDGDCFMVSSEADTYYRARMKCQRKGGVLAQIKSQKVQDILAFYLGRLETTNEVT
                                                                   RLNISTCHCHCPPGYTGRYCQYRCSLQCVHGRFREEECSCVCDIGYGGAQCATKVHFPFH
                                                                                                                                                              {\tt WVQPPAADMRRLDWSDSLAQLAQARAALCGIPTPSLASGLWRTLQVGWNMQLLPAGLASF}
                                                                                                                                                                                                                                WVQPPAADMRRLDWSDSLAQLAQARAALCGIPTPSLASGLWRTLQVGWNNQLLPAGLASF 120
TCDLRIDGDCFMVSSEADTYYRARMKCQRKGGVLAQIKSQKVQDILAFYLGRLETTNEVI 360
                                                     RLNISTCHCHCPPGYTGRYCQVRCSLQCVHGRFREEECSCVCDIGYGGAQCATKVHFPFH
                                                                                                          AYSPGGNWEVNGKTIIPYKKGAWCSLCTASVSGCFKAWDHAGGLCEVPRNPCRMSCQNHG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               secreted protein #2
                                                                                                                                                                                                                                                                                                                                                                                                                  diseases.
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                                                                                                                                                                                                                                                                                                                                                                                       446 AA;
                                                                                                                                                                                                                                                                                                                                  Conservative
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97.1%;
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                                                                                                                                                                                                                                                                                                                               Mismatches
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KA, Ni J,
                                                                                                                                                                                                                                                                                                                                3; Indels
                                                                                                                                                                                                                                                                                                                                                         Length 446;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human; haematopolesis; clotting; kidney failure; wound healing; cancer; neoplasia; pancreatic disorder; pancreatitis; cerebrovascular disease; heart disorder; ischaemic heart disease; neuroprotective; vulnerary; cardiovascular disorder; ischaemic heart disease; immunosuppressive; glomerular disease; glomerulonephritis; uterine disorder; hyperplasia; fetal spleen; prostate disorder; inflammatory disease; Crohn's disease; proliferative disorder; gynaecological; haemostatic; antibacterial; systemic lupus erythematosus; immunodeficiency disorder; antiasthmatic; cytostatic; nephrotropic; antidiabetic; cerebroprotective; tranquilliser; hypotensive; tumour; injury; trauma; antianginal; vasotropic; antiulcer; apoptotic disorder; rheumatoid arthritis; cardiant; renal disorder; hepatotropic; antipsoriatic; antiallergic; dermatological; virucide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAE21077 standard; Protein; 446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human T139 (TANGO-139) protein.
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                                                                                                                                                                                                                                                                                                                                                                                                     Peptide
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                                                                                                                                                                                                         21-FEB-2001; 2001US-0790264.
                                                                                                                                                                                                                                                                                                                                                          Domain
                                                                                                                                                                                                                                                                                                                                                                                 Protein
                                                                                                                                                   29-JUL-1998;
                                                                                                                                                             23-APR-1998;
22-JUN-1998;
                                                                                                                                                                                     23-APR-1998;
                                                                                                              29-JUL-1999;
                                                                                                                            23-APR-1999;
22-JUN-1999;
                                             Holtzman DA,
                                                                   (MCCA/)
                                                                                         (HOLT/) HOLTZMAN D A.
                                                                               GOOD/)
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                                                                   GOODEARL A
                                             Goodearl ADJ,
                                                                                                                            99US-0298531.
99US-0337930.
                                                                                                                                                   98US-0124538.
                                                                                                                                                             98US-0065661.
98US-0102705.
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                                                                                                                 99US-0363630
                                                                                                                                                                                                                                                                                                              /note= "(
232..260
                                                                                                                                                                                                                                                                                                                                                           /note=
47..19
                                                                                                                                                                                                                                                                                                                                                                                 /label= Signal_peptide 27..446
                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                           /note= "Epidermal growth factor domain 2"
                                                                                                                                                                                                                                                                                          264 : . 291
                                                                               DJ.
                                                                                                                                                                                                                                                                                                                                                           .190
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                                                                                                                                                                                                                                                                                                                                                                       "Human mature T139 protein"
                                                                                                                                                                                                                                                                                                                                               "Sperm-coating domain"
                                                                                                                                                                                                                                                                                                  "Epidermal growth factor domain 1"
                                                                                                                                                                                                                                                                                                                          "C-type
                                               Mccarthy SA;
                                                                                                                                                                                                                                                                                                                          lectin domain"
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Novel TANGO polypeptides and nucleic acid molecules useful as modulating agents in regulating cellular processes and for diagnosing and treating heart, liver, lung, kidney, inflammatory and cellular proliferative disorders
                                                                                                                                                                                                  proliferative disorders
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Claim 49; Fig 1; 138pp; English.

cultivouer characterises by their adeliant expression of activity. The cantibodies are useful as modulating agents in regulating a variety of cellular processes e.g. cell proliferation and/or cell differentiation. GC TANGO-139 is useful for treating kidney defects such as kidney failure, TANGO-125 is useful in wound healing and for treating cancer, TANGO-110 is useful for treating neoplasia. TANGO-177 or WDNM-2 is useful for creating cancer, are useful to treat pancreatic disorders, such as pancreatitis, cerebrovascular disease, and tunours, and injury or trauma to the brain TANGO-125, 110, 175 molecules treat heart disorders, e.g., ischaemic cheart disease, cardiovascular disorders, such as ischaemic cheart disease, cardiovascular disorders, such as ischaemic cheart disease, randovascular disorders, such as ischaemic chronic glomerulonephritis), TANGO-175 in useful to treat and conders, hyperplasia of the endometrium. TANGO-110 is useful to treat gleen, e.g., the fetal spleen, associated diseases and disorder. TANGO-125 treats prostate disorders, such as inflammatory diseases, crohn's confidence and tumours. TANGO-139, 125, 110, 175 or WDNM-2 are useful for confidence and tumours. TANGO-139, 125, 110, 175 or WDNM-2 are useful for confidence and tumours. TANGO-139, 125, 110, 175 or WDNM-2 are useful for confidence and tumours. TANGO-139, 125, 110, 175 or WDNM-2 are useful for confidence and tumours. TANGO-139, 125, 110, 175 or WDNM-2 are useful for confidence and tumours. TANGO-139, 125, 110, 175 or WDNM-2 are useful for confidence and tumours. TANGO-139, 125, 110, 175 or WDNM-2 are useful for confidence and tumours. TANGO-139, 125, 110, 175 or WDNM-2 are useful for confidence and tumours. TANGO-135, or worders, related disorders, insulin-dependent diabetes mellitus, confidence and apoptotic disorders. The nucleic acids of the invention confidence and the invention are useful to reat and the protein. The invention relates to nucleic acids encoding a variety of proteins human T139 (TANGO-139), T125 (TANGO-125), T110 (TANGO-110), murine T175 (TANGO-175), human T175 or murine WDNM-2, having diagnostic, preventive, therapeutic and other uses. Polypeptide of the invention has the ability to inhibit a proteinase activity, to modulate cell-cell interactions, haematopoiesis and the ability to modulate clotting. Polypeptide and polynucleotide of the invention are useful for diagnosing and treating disorder characterised by their aberrant expression or activity. The Sequence 446 AA;

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Matches
                                                                                                                                                                                                                                                     Query Match
                                             121
                                                                      121 VEVVSLWFAEGQRYSHAAGECARNATCTHYTQLVWATSSQLGCGRHLCSAGQTAIEAFVC
                                                                                                       61
                                                                                                                    61 WVQPPAADMRRLDWSDSLAQLAQARAALCGIPTPSLASGLWRTLQVGWNMQLLPAGLASF
                                                                                                                                                                                                                                          Local
                                                                                                                                                              1 MLHPETSPGRGHLLAVLLALLGTAWAEVWPPQLQEQAPMAGALNRKESFLLLSLHNRLRS
                                                                                                                                                                                            1 MLHPETSPGRGHLLAVLLALLGTTWAEVWPPQLQEQAPMAGALNRKESFLLLSLHNRLRS
                                                                                                      WVQPPAADMRRLDWSDSLAQLAQARAALCGIPTPSLASGLWRTLQVGWNMQLLPAGLASF
AYSPGGNWEVNGKTIIPYKKGAWCSLCTASVSGCFKAWDHAGGLCEVPRNPCRMSCQNHG
                                            al Similarity
442; Conserv
                                                                                                                                                                                                                             Conservative
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97.1%;
                                                                                                                                                                                                                            Score 2447.5; DB 23
Pred. No. 2.4e-177;
Pred. No. 3;
                                                                                                                                                                                                                                                           DB 23; Length 446;
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241

RLNISTCHCHCPPGYTGRYCQVRCSLQCVHGRFREEECSCVCDIGYGGAQCATKVHFPFH

AYSPGGNWEVNGKTIIPYKKGAWCSLCTASVSGCFKAWDHAGGLCEVPRNPCRMSCQNHG

240

181

301

Qy

DSDFETRNFWIGLTYKTAKDSFRWATGEHQAFTSFAFGQPDNHGLVWLSAAMGFGNCVEL 420

DSDFETRNFWIGLTYKTAKDSFRWATGEHQAFTSFAFGQPDNH---

TCDLRIDGDCFWYSSEADTYYRARMKCQRKGGVLAQIKSQKVQDILAFYLGRLETINEVT RLNISTCHCHCPPGYTGRYCQVRCSLQCVHGRFREEECSCVCDIGYGGAQCATKVHFPFH

TCDLRIDGDCFMVSSEADTYYRARMKCQRKGGVLAQIKSQKVQDILAFYLGRLETTNEVI

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RESULT 8
AAM93326
ID AAM9
XX AAM9
XX AAM9
XX DT 06-N
XX Huma
XX Huma
XX FF 07-J
PR 08-J
PR 02-M
XX O7-J
PR 02-M
XX HEL
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                                                                                                                                                                                                                                                                                                                                                     Matches 438;
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11-JAN-2000;
02-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          molecules have been determined. Primers for synthesising the full length CDNA are useful for clarifying the function of the protein encoded by the cDNA. The full length clones were obtained by construction of full length enriched cDNA libraries that were synthesised by the oligo-capping method. The primers enable the production of the full length cDNA easily without any special methods. The present sequence is a polypeptide encoded by a full length human cDNA of the invention.

Note: The sequence data for this patent did not form part of the printed specification, but was obtained in CD-ROM format directly from EPO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The invention relates to primers for synthesising full length cDNA clones. 830 cDNA molecules encoding a human protein have been isolated and nucleotide sequences of 5'- and 3'-ends of the cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 8; SEQ ID NO 2851; 1380pp + sequence listing; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        830 Primers useful for synthesizing full length cDNA clones and their
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ota T,
           121
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (HELI-) HELIX RES INST
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   in genetic manipulation -
VEVVSLWFAEGQRYSHAAGECARNATCTHYTQLVWATSSQLGCGRHLCSAGQTAIEAFVC 180
                                                                                                                                           WVQPPAADMRRLDWSDSLAQLAQARAALCGIPTPSLASGLWRTLQVGWNNQLLPAGLASF 120
                                                                                                                                                                                                                                                         MLHPETSPGRGHLLAVLLALLGTTWAEVWPPQLQEQAPMAGALNRKESFLLLSLHNRLRS 60
                                                                                                                WVQPPAADMRRLDWSDSLAQLAQARAALCGTPTPSLASGPWRTLQVGWNMQLLPAGLASF
                                                                                                                                                                                                                              MLHPETSPGRGHLLAVLLALLGTAWAEVWPPQLQEQAPMAGALNRKESFLLLSLHNRLRS 60
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                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   446 AA;
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2000JP-0118774
2000JP-0183765
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                                                                                                                                                                                                                                                                                                                                                                          95.9%;
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                                                                                                                                                                                                                                                                                                                                                                    Score 2426.5; DB 22; Pred. No. 9.5e-176;
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                                                                                                                                                                                                                                                                                                                                               9
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                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                  Length 446;
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                                                                                                                                                                                                                                                                                                                                         9;
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                                                                                                                                                                                                                                                                                                                                      Gaps
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RESULT 9
AAY41267
       CC This is the mature protein sequence of the human T139 polypeptide. The CC T139 polypeptide can be expressed by standard recombinant methodology. CC The T139 cDNA insert is deposited with ATCC under accession number CC 98694. The T139 polypeptides and polypucleotides can be administered CC therapeutically or prophylactically to treat/prevent disorders associated CC with aberrant T139 expression or activity, especially proliferative or CC differentiative disorders, e.g. of the immune system. They can be used to CC modulate spermatogenesis, e.g. as a contraceptive to decrease CC spermatogenesis or to treat disorders related to defects in sperm-egg CC fusion. They may also be useful to treat testicular disorders e.g. CC testicular cancer. The polypeptides may be used to identify selectively CC binding compounds which may be useful for detecting the polypeptides in CC samples; and identifying compounds modulating polypeptide activity. The CC polynucleotides are useful for producing probes or primers that CC selectively hybridize to the polypucleotides which may be useful for detection the polypeptide activity.
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detecting the polynucleotides in a sample,
                                                                                                                                                                                                                                                                                                                  Claim 2; Page 114-115; 115pp; English
                                                                                                                                                                                                                                                                                                                                                                     Human T139 nucleic acids and polypeptides, useful for treating proliferative disorders associated with aberrant T139 expression or
                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1999-633969/54.
N-PSDB; AAZ23299, AAZ23300.
                                                                                                                                                                                                                                                                                                                                                          activity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   23-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23-APR-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sperm-egg fusion;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human; T139 polypeptide; immune system disorder; spermatogenesis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human T139 mature protein sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 31-JAN-2000 (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421 QASAAFNWNDQRCKTRNRYICQFAQEHISRWGPGS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DSDFETRNFWIGLTYKTAKDSFRWATGEHQAFTSFAFGQPDNH------GFGNCVEL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RLNISTCHCHCPPGYTGRYCQVRCSLQCVHGRFREEECSCVCDIGYGGAQCATKVHFPFH
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98US-0065661
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     testicular disorder; testicular
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gene mapping;

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cells or tissues expressing aberrant T139 levels; determining if a gene has been mutated or deleted to identify subjects at risk for or having a disorder associated with T139 expression or activity and to monitor therapeutic interventions; and for producing antisense sequences for therapeutic administration to modulate/prevent T139 expression.
                                                                                                                                glomerular disease; glomerulonephritis; uterine disorder; hyperplasia; fetal spleen; prostate disorder; inflammatory disease; Crohn's disease; proliferative disorder; gynaecological; haemostatic; antibacterial; systemic lupus erythematosus; immunodeficiency disorder; antiasthmatic; cytostatic; nephrotropic; antidiabetic; cerebroprotective; tranquilliser; hypotensive; tumour; injury; trauma; antianginal; vasotropic; antiulcer; apoptotic disorder; rheumatoid arthritis; cardiant; renal disorder;
                                                                                                                                                                                                                                                                    Human; haematopolesis; clotting; kidney failure; wound healing; cancer; neoplasia; pancreatic disorder; pancreatitis; cerebrovascular disease; heart disorder; ischaemic heart disease; neuroprotective; vulnerary; cardiovascular disorder; ischaemic heart disease; immunosuppressive;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAE21078 standard; Protein; 420 AA.
                                                                                                                                                                                                                                                                                                                                                                      Human T139 (TANGO-139) mature protein.
                                                                                                                                                                                                                                                                                                                                                                                                             01-JUL-2002 (first entry)
                                                                                               hepatotropic; antipsoriatic; antiallergic; dermatological; virucide; T139.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          412 HISRWGPGS 420
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ALCGIPTPSLASGLWRTLQVGWNMQLLPAGLASFVEVVSLWFAEGQRYSHAAGECARNAT 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EVWPPQLQEQAPMAGALNRKESFLLLSLHNRLRSWVQPPAADMRRLDWSDSLAQLAQARA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EVWPPQLQEQAPMAGALNRKESFLLLSLHNRLRSWVQPPAADMRRLDWSDSLAQLAQARA 86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HISRWGPGS 455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ALCGIPTPSLASGLWRTLQVGWNMQLLPAGLASFVEVVSLWFAEGQRYSHAAGECARNAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GEHQAFTSFAFGQPDNH------GFGNCVELQASAAFNWNNQRCKTRNRYTCQFAQE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GEHQAFTSFAFGQPDNHGLVWLSAAMGFGNCVELQASAAFNWNDQRCKTRNRYICQFAQE 446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CQRKGGVLAQIKSQKVQDILAFYLGRLETTNEVTDSDFETRNEWIGLTYKTAKDSFRWAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QCVHGRFREEECSCVCDIGYGGAQCATKVHFPFHTCDLRIDGDCFMVSSEADTYYRARMK 326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CQRKGGVLAQIKSQKVQDILAFYLGRLETTNEVIDSDFETRNFWIGLTYKTAKDSFRWAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QCVHGRFREEECSCVCDIGYGGAQCATKVHFPFHTCDLRIDGDCFMVSSEADTYYRARMK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTASVSGCFKAWDHAGGLCEVPRNPCRMSCQNHGRLNISTCHCHCPPGYTGRYCQVRCSL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    420 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           91.6%;
97.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 2315.5; DB 2
pred. No. 2.3e-167;
1; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 420;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9; Gaps
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US2002028508-A1

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ALCGIPTPSLASGLWRTLQVGWNMQLLPAGLASFVEVVSLWFAEGQRYSHAAGECARNAT

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QY
                                                             В
                                                                                                                                                                                                                                                                                                                                                          continuous, cerebrovascular disease, and tumours, and injury or trauma to the brain. TANGO-125, 110, 175 molecules treat heart disorders, e.g., cischaemic heart disease, cardiovascular disorders, such as ischaemic cheart disease. TANGO-139, 125, 110 and 175 molecules are useful to treat crenal (kidney) disorders, such as glomerular disease (e.g., acute and chronic glomerularephritis), TANGO-175 is useful to treat uterine continuous cont
                                                                                                                                                                           Matches
                                                                                                                                                                                                  Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               23-APR-1998;
22-JUN-1998;
29-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention relates to nucleic acids encoding a variety of proteins human T139 (TANGO-125), T110 (TANGO-110), murine T175 (TANGO-125), T110 (TANGO-110), murine T175 (TANGO-125), T110 (TANGO-110), murine T175 (TANGO-125), human T175 or murine WDNM-2, having diagnostic, preventive, therapeutic and other uses. Polypeptide of the invention has the ability to inhibit a proteinase activity, to modulate cell-cell interactions, haematopoiesis and the ability to modulate clotting. Polypeptide and polynucleotide of the invention are useful for diagnosing and treating disorder characterised by their aberrant expression or activity. The antibodies are useful as modulating agents in regulating a variety of cellular processes e.g. cell proliferation and/or cell differentiation. TANGO-139 is useful for treating kidney defects such as kidney failure, TANGO-125 is useful for treating neoplasia, TANGO-177 or WDNM-2 is useful for treating neoplasia, TANGO-177 or WDNM-2 is useful for treating cancer, are useful to treat panceatic disorders, such as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Novel TANGO polypeptides and nucleic acid molecules useful as modulating agents in regulating cellular processes and for diagnosing and treating heart, liver, lung, kidney, inflammatory and cellular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 50;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Holtzman DA,
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22-JUN-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   proliferative disorders
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                                                                                                                                                                                                                                                                                    Sequence
                                                             EVWPPQLQEQAPMAGALNRKESFLLLSLHNRLRSWVQPPAADMRRLDWSDSLAQLAQARA
                                                                                          EVWPPQLQEQAPMAGALNRKESFLLLSLHNRLRSWVQPPAADMRRLDWSDSLAQLAQARA 86
     ALCGIPTPSLASGLWRTLQVGWNMQLLPAGLASFVEVVSLWFAEGQRYSHAAGECARNAT 146
                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Page 51-52; 138pp; English.
                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                           Conservative
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98US-0124538.
99US-0298531.
99US-0337930.
99US-0363630.
                                                                                                                                                                                                                                                                                       AA;
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                                                                                                                                                                                                  91.6%;
97.2%;
                                                                                                                                                                           1; Mismatches
                                                                                                                                                                                                  Score 2315.5;
Pred. No. 2.3
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                                                                                                                                                                                                        .3e-167;
                                                                                                                                                                                                                             DB 23;
                                                                                                                                                                              Indels
                                                                                                                                                                                                                             Length 420;
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The invention relates to isolated polynucleotide (I) and polypeptide (II) sequences. (I) is useful as hybridisation probes, polymerase chain reaction (PCR) primers, oligomers, and for chromosome and gene mapping, and in recombinant production of (II). The polynucleotides are also used in diagnostics as expressed sequence tags for identifying expressed genes. (I) is useful in gene therapy technique to restore normal activity of (II) or to treat disease states involving (II). (II) is useful for generating antibodies against it, detecting or quantitating a polypeptide in tissue, as molecular weight markers and as
                                                                                                                                                      Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABG12157 standard; Protein; 506 AA
                                                                                                                                                                                   New isolated polynucleotide and encoded polypeptides, useful in diagnostics, forensics, gene mapping, identification of mutations responsible for genetic disorders or other traits and to assess biodiversity
                                                                                                                                                                                                                                                                                                                                                             31-MAR-2000; 2000US-0540217.
23-AUG-2000; 2000US-0649167.
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                                                                                                                                                                                biodiversity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens.
                                                                                                                                                                                                                                                                                                                                (HYSE-) HYSEQ INC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GEHQAFTSFAFGQPDNH-----
                                                                                                                                                   20; SEQ ID No 42516; 103pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mapping;
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maging; diagnostic; genetic
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                                              techniques
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RESULT 12
ABG27603
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XX ABG27
XX Hovel
XX Human
XW Homo
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Note: The sequence data for this patent did not appear in the printed specification, but was obtained in electronic format directly from WIPO at fife.wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                                                ABG27603 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                        Novel human diagnostic protein #27594.
                                                                                                                                                                            18-FEB-2002
                                                   Homo sapiens
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                                                                                  supplement;
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                                                                                                                                                                                                                                                                                                                                                       AFNWNDQRCKTRNRYICQF 443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VHFPFHTCDLRIDGDCFMVSSEADTYYRARMKCQRKGGVLAQIKSQKVQDILAFYLGRLE 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SCQNHGRLNISTCHCHCPPGYTGRYCQVRCSLQCVHGRFREEEECSCVCDIGYGGAQCATK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SDPGQPVVLPAVTSVVGYSCLGPQEGLRWSLAGSWHP---FQGPFVKVL---ENFISVK-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TSPGRGHLLAVLLALLGTT------W--AEVWPPQLQEQAPMAGALNRKESFLLLSL
                                                                                                                                                                                                                                                                                                                                                                                                           NLDYPGPGLTYKTAKDSFRWATGEHQAFTSFAFGQPDNH-----
                                                                                                                                                                                                                                                                                                                                                                                                                                            -----GLTYKTAKDSFRWATGEHQAFTSFAFGQPDNHGLVWLSAAMGFGNCVELQASA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTNEVIDSDFETRNFWIGTLGHGGCQQMARGPGREHMGAASAGKRGQKGSWQQTPGSEWA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTNEVTDSDFETRNFWI - - - - - - - -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IEAFVCAYSPRGNWEVNGKTIVPYKKGAWCSLCTASVSGCFKAWDHAGGLCEVPRNPCRM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGLVSFVEVVSLWFAEGQRYSHAAGECARNATCTHYTQLVWATSSQLGCGRHLCSAGQAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGLASFVEVVSLWFAEGQRYSHAAGECARNATCTHYTQLVWATSSQLGCGRHLCSAGQTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HNRLRSWYQPPAADMRRLDWSDSLAQLAQARAALCGIPTPSLASGLWRTLQVGWNMQLLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SCONHGRENISTCHCHCPPGYTGRYCOVRCSLQCVHGRFREEECSCVCDIGYGGAQCATK
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               369;
                                                                                                      chromosome mapping;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   506 AA;
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                                                                                                                                                                          (first entry)
                                                                                        medical
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73.9%;
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                                                                                      imaging;
                                                                                    gene mapping; gene
maging; diagnostic;
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; Pred. No. 1.9e-140;
12; Mismatches 23; Indels
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                                                                                    genetic (
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CC Note: The sequence data for this patent did not appear in the printed content wind information of information of informations of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches 308;
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23-AUG-2000; 2000US-0649167.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
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   333
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                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                     33 MLHPETSPGRGHLLAVLLALLGTAWAEVWPPQLQEQAPMAGALNRKESFLLLSLHNRLRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                 1 MLHPETSPGRGHLLAVLLALLGTTWAEVWPPQLQEQAPMAGALNRKESFLLLSLHNRLRS 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ftp.wipo.int/pub/published_pct_sequences.
                                                                    AYSPGGNWEVNGKTIIPYKKGAWCSLCTASVSGCFKAWDHAGGLCEVPRNPCRMSCQNHG
   TCDLRIDGDCFMVSS 347
                                     TCDLRIDGDCFMVSS 315
                                                                                                                                             AYSPRGNWEVNGKTIVPYKKGAWCSLCTASVSGCFKAWDHAGGLCEVPRNPCRMSCQNHG
                                                                                                                                                                                                                                                     VEVVSLWFAEGQRYSHAAGECARNATCTHYTQLVWATSSQLGCGRHLCSAGQTAIEAFVC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         395 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   68.5%;
97.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                  1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 1732; DB 22; Pred. No. 3.4e-123;
                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                    9
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RESULT 13
ABG12156
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CC Note: The sequence data for this patent did not appear in the printed consciption, but was obtained in electronic format directly from WIPO CC at ftp.wipo.int/pub/published_pct_sequences.
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Best Local (
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23-AUG-2000; 2000US-0649167.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABG12156;
                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N-PSDB; AAS76343.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (HYSE-) HYSEQ INC
61 WVQPPAADMRRLDWSDSLAQLAQARAALCGIPTPSLASGLWRTLQVGWNMQLLPAGLASF 120
                                                                                               1 MLHPETSPGRGHLLAVLLALLGTTWAEVWPPQLQEQAPMAGALNRKESFLLLSLHNRLRS 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               n; chromosome mapping; gene mapping; gene therapy; forensic
supplement; medical imaging; diagnostic; genetic disorder.
                                                               MLHPETSPGRGHLLAVLLALLGTTWAEVWPPQLQEQAPMAGALNRKESFLLLSLHNRLRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2001-639362/73.
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                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQ ID No 42515; 103pp; English.
                                                                                                                                                                                                                                                                                                                                              276 AA;
                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Liu C,
                                                                                                                                                                                                                                       45.3%;
93.9%;
                                                                                                                                                                                                                                       Score 1145; DB 22; Pred. No. 6.8e-79;
                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                   Length 276;
                                                                                                                                                                                                       Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
The present sequence is that of human protease and associated protein-9 (PPRG-9), which is expressed in urologic and musculoskeletal tissues. It is encoded by cDNA identified in Incyte clone 998626 derived from KIDNTUTOL CDNA library. Anti-PPRG antibodies can be used as therapeutic antagonists, reagents for diagnosis and monitoring diseases and for isolating PPRG. PPRG nucleotide sequence can be used as probe or primer for diagnosis and monitoring of PPRG-related diseases and gene mapping. PPRG can be used in the treatment of cell
                                                                                                                                              Claim 1; Page 84-85; 114pp; English.
                                                                                                                                                                          New human proteases, useful for diagnosis, treatment and prevention cell proliferative disorders such as atherosclerosis -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Protease and associated protein-9; ppRG-9; anti-ppRG antibody; diagnosis; treatment; cell proliferative disorder; cancer; cirrhosis; arteriosclerosis; atherosclerosis; bursitis; hepatitis; immune disorde; AlDS; Addison's disease; adult respiratory distress syndrome; allergy; ankylosing spondylitis; amyloidosis; cytostatic; antiarteriosclerotic; hepatototorpoic; antiinflammatory; virucide; antipsoriatic; anti-HIV; antiallergic; immunosuppressive; antidiabetic; antianaemic;
                                                                                                                                                                                                                                                                                          Corley NC,
                                                                                                                                                                                                                                                                                                          Bandman O,
                                                                                                                                                                                                                                                                                                                                      (INCY-) INCYTE PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                     10-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                     06-AUG-1999;
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                                                                                                                                                                                                                                                                                                                                                                        11-FEB-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    neuroprotective;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human Protease and associated protein-9 (PPRG-9).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         05-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAY70015;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAY70015 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121 VEVVSLWFAEGQRYSHAAGECARNATCTHYTQLVWATSSQLGCGRHLCSAGQTAIEAFVC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          93
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WVQPPAADMRRLDWSDSLAQLAQARAALCGIPTPSLASGLWRTLQVGWNMQLLPAGLASF 152
                                                                                                                                                                                                                                                                          ), Hillman JL, Baughn MR, A:
, Yue H, Tang YT, Reddy R,
Lu DAM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                      99US-0119768
                                                                                                                                                                                                                                                                                                                                                                                     98US-0096114
                                                                                                                                                                                                                                                                                                                                                                                                                   99WO-US17818.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note= "Potential Phosphorylation site" 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /label= Mature_PPRG-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /label= Signal_peptide
27..166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note= "Potential Phosphorylation site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    166 AA
                                                                                                                                                                                                                                                                                                     Azimzai Y,
                                                                                                                                                                                                                                                                                      Patterson
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Best Local
The invention relates to isolated polynucleotide (I) and polypeptide (II) sequences. (I) is useful as hybridisation probes, polymerase chain reaction (PCR) primers, oligomers, and for chromosome and gene mapping, and in recombinant production of (II). The polynucleotides are also used in diagnostics as expressed sequence tags for identifying expressed genes. (I) is useful in gene therapy techniques to restore normal activity of (II) or to treat disease states involving (II). (II) is useful for generating antibodies against it, detecting or quantitating a polypeptide in tissue, as molecular weight markers and as a food supplement. (II) and its binding partners are useful in medical imaging of sites expressing (II). (I) and (II) are useful for treating
                                                                                                                                                                                                                          Claim 20;
                                                                                                                                                                                                                                                                  New isolated polynucleotide and encoded polypeptides, useful in diagnostics, forensics, gene mapping, identification of mutations responsible for genetic disorders or other traits and to assess
                                                                                                                                                                                                                                                            biodiversity
                                                                                                                                                                                                                                                                                                                                                  N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                   Drmanac RT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      31-MAR-2000;
23-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                    (HYSE-) HYSEQ INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30-MAR-2001; 2001WO-US08631.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200175067-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human; chromosome mapping; gene mapping; gene therapy; forensic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Novel human diagnostic protein #17014.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18-FEB-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABG17023 standard; Protein; 493 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               proliferative disorders like cancer, arteriosclerosis, atherosclerosis, bursitis, cirrhosis and hepatitis, and immune disorders like AIDS, Addison's disease, adult respiratory distress syndrome, allergies, ankylosing spondylitis and amyloidosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121 VEVVSLWFAEGORYSHAAGECARNATCTHYTQLVWATSSQLGCGRH 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121 VEVVSLWFAEGQRYSHAAGECARNATCTHYTQLVWATSSQLGCGRH 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61 WVQPPAADMRRLDWSDSLAQLAQARAALCGIPTPSLASGLWRTLQVGWNMQLLPAGLASF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61 WVQPPAADMRRLDWSDSLAQLAQARAALCGIPTPSLASGLWRTLOVGWNNQLLPAGLASF 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 MIHPETSPGRGHILAVLLALLGTAWAEVWPPQLQEQAPMAGALNRKESFLLLSLHNRLRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 MLHPETSPGRGHLLAVLLALLGTTWAEVWPPQLQEQAPMAGALNRKESFLLLSLHNRLRS
                                                                                                                                                                                                                                                                                                                                                                2001-639362/73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          supplement; medical imaging; diagnostic; genetic disorder
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        165;
                                                                                                                                                                                                                                                                                                                                                  AAS81210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                   SEQ ID No 47382; 103pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           166 AA;
                                                                                                                                                                                                                                                                                                                                                                                                   Liu C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000US-0540217
2000US-0649167
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 882; DB 21;
Pred. No. 3.2e-59;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 166;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             60
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Вb Qy B δÃ Дb δÃ DЪ Š DЪ QΥ 888888888888888 δÃ Query Match 29.1%; Score 735; DB 22; Length 493; Best Local Similarity 48.6%; Pred. No. 1.5e-47; Matches 159; Conservative 3; Mismatches 21; Indels 144; Gaps disorders involving aberrant protein expression or biological activity. The polypeptide and polynucleotide sequences have applications in diagnostics, forensics, gene mapping, identification of mutations responsible for genetic disorders or other traits to assess biodiversity and to produce other types of data and products dependent on DNA and amino acid sequences. ABG00010-ABG30377 represent novel human diagnostic amino acid sequences of the invention.

Note: The sequence data for this patent did not appear in the printed specification, but was obtained in electronic format directly from WIPO as for the invention. Sequence at ftp.wipo.int/pub/published_pct_sequences. 333 LETTNEVIDSDFETRNFWIGREHMGAASAGKRGQKGSWQQTPGSEWANLDYPGPGLTYKT 392 298 PFHTCDLRIDGDCFMVSSEAD-----TYYRAR-----169 -----VRCSLQCVHGRFREEECSCVCDIGYGGAQCATWNTFVKQLLYFE 212 246 TCHCHCPPGYTGRYCQVRCSLQCVHGRFREEECSCVCDIGYGGAQCATKVHF----- 297 213 QIKECADEPVGKGYMVSCLVDHRGNITEYQCHQYITKMTAIIFSDYRLICGFMDDCKNDI 272 393 AKDSFRWATGEHQAFTSFAFGQPDNHG 419 AKDSFRWATGEHQAFTSFAFGQPDNHG 404 493 AA; -----GLTYKT 377 6;

search completed: December 29, 2002, 02:23:00
Job time : 82 secs

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Database
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Maximum DB seq length: 200000000
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Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              and is derived by analysis of the total score distribution.
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2529
1 MLHPETSPGRGHLL
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Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                is the number of results predicted by chance to have a ater than or equal to the score of the result being printed,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BLOSUM62
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: /cgn2_6/ptodata/2/pubpaa/US06_DBCOMB.pep:*
: /cgn2_6/ptodata/2/pubpaa/US07_NEW_PUB.pep:*
: /cgn2_6/ptodata/2/pubpaa/US07_PUBCOMB.pep:*
: /cgn2_6/ptodata/2/pubpaa/US07_PUBCOMB.pep:*
: /cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*
: /cgn2_6/ptodata/2/pubpaa/US09_NEW_PUB.pep:*
: /cgn2_6/ptodata/2/pubpaa/US09_PUBCOMB.pep:*
: /cgn2_6/ptodata/2/pubpaa/US10_NEW_PUB.pep:*
: /cgn2_6/ptodata/2/pubpaa/US10_DUBCOMB.pep:*
2: /cgn2_6/ptodata/2/pubpaa/US10_NEW_PUB.pep:*
3: /cgn2_6/ptodata/2/pubpaa/US60_NEW_PUB.pep:*
4: /cgn2_6/ptodata/2/pubpaa/US60_NEW_PUB.pep:*
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/cgn2_6/ptodata/2/pubpaa/PCT_NEW_PUB.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
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first 45 summaries
                                          DB
US-09-944-413-50
US-09-944-896-50
US-09-944-944-50
US-09-944-944-50
US-09-944-449-50
US-09-944-862-50
US-09-944-862-50
US-09-944-862-50
US-09-944-396-50
US-09-944-32-50
US-09-944-654-50
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (without alignments)
109.416 Million cell updates/sec
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                                                                                 Sequence 50, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                    Description
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Sequence
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Sequence 10, App Sequence 110, App Sequence 113, App Sequence 113, App Sequence 114, App Sequence 114, App Sequence 114, App Sequence 363, App Sequence 370, App11 Sequence 930, App Sequence 930, App Sequence 95, App11 Sequence 95, App11 Sequence 15, App1 Sequence 15, App1 Sequence 15, App1 Sequence 15, App1	Sequence 4, Appli Sequence 285, App Sequence 285, App Sequence 285, App Sequence 285, Appli

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US-09-944-413-50

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CURRENT APPLICATION NUMBER: US/09/944,413
CURRENT FILING DATE: 2001-09-26
PRIOR APPLICATION NUMBER: 09/86,028
PRIOR FILING DATE: 2001-05-25
PRIOR FILING DATE: December 3, 1997
PRIOR FILING DATE: December 11, 1997
PRIOR APPLICATION NUMBER: 60/069,334
PRIOR APPLICATION NUMBER: 60/069,334
PRIOR APPLICATION NUMBER: 60/069335
PRIOR FILING DATE: December 11, 1997
PRIOR FILING DATE: December 11, 1997
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Patent No.
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APPLICANT:
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APPLICANT:
                                                              PRIOR APPLICATION NUMBER: 60/069335
PRIOR FILING DATE: December 11, 1997
PRIOR APPLICATION NUMBER: 60/069,278
PRIOR FILING DATE: December 11, 1997
PRIOR APPLICATION NUMBER: 60/069,425
PRIOR FILING DATE: December 12, 1997
PRIOR FILING DATE: December 12, 1997
PRIOR APPLICATION NUMBER: 60/069,696
                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P2548P1C1
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FILING DATE: December 16, 1 APPLICATION NUMBER: 60/069, FILING DATE: December 16, 1
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o. US20020156004A1
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Tumas, Daniel
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Grimaldi, Christopher
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OR APPLICATION NUMBER: 09/216,021
OR FILING DATE: December 16, 1998
OR APPLICATION NUMBER: 09/218,517
OR FILING DATE: December 22, 1998
OR APPLICATION NUMBER: 09/254,311
1 MLHPETSPGRGHLLAVLLALLGTTWAEVWPPQLQEQAPMAGALNRKESFLLLSLHNRLRS
                                                                                                                                                                                                                                            APPLICATION NUMBER: PCT/US01/06520
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FILING DATE: May 22, 2000
APPLICATION NUMBER: PCT/US00/20710
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APPLICATION NUMBER: PCT/US99/28409
FILING DATE: NO. US20020156004A1ember 30,
APPLICATION NUMBER: PCT/US99/28313
FILING DATE: NO. US20020156004A1ember 30,
APPLICATION NUMBER: PCT/US99/28301
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FILING DATE: June 22,
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APPLICATION NUMBER: 60/070,440
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                                 PRIOR FILING DATE: 2001.05-25
PRIOR APPLICATION NUMBER: 60/067,411
PRIOR APPLICATION NUMBER: 60/067,411
PRIOR FILING DATE: December 1, 1997
PRIOR APPLICATION NUMBER: 60/069,335
PRIOR APPLICATION NUMBER: 60/069,335
PRIOR FILING DATE: December 11, 1997
PRIOR PRIOR APPLICATION NUMBER: 60/069,278
PRIOR APPLICATION NUMBER: 60/069,278
PRIOR FILING DATE: December 11, 1997
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CURRENT FILING DATE: 2001-09-26
PRIOR APPLICATION NUMBER: 09/866,028
PRIOR FILING DATE: 2001-05-25
PRIOR FILING DATE: 2001-05-25
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Grimaldi, Christopher
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                    NUMBER: 60/069,
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; LENGTH: 455
; TYPE: PRT
; ORGANISM: HOMO S
US-09-944-403-50
                                                                                                                                                               SEQ ID NO 50
                             Matches
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APPLICATION NUMBER: 60/074,086
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FILING DATE: March 3, 1999
APPLICATION NUMBER: PCT/US99/12252
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APPLICATION NUMBER: PCT/US99/28313
FILING DATE: No. US20020165143A1ember 30, 1999
APPLICATION NUMBER: PCT/US99/28301
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APPLICATION NUMBER: PCT/US99/28409
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APPLICATION NUMBER: PCT/US99/21090
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APPLICATION NUMBER: PCT/US98/19330
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                             455;
                          h 100.0%; Score 2529; DB 9;
Similarity 100.0%; Pred. No. 1.2e-172;
55; Conservative 0; Mismatches 0;
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NOS: 120
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NUMBER: 60/146,222
July 28, 1999
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PRIOR APPLICATION NUMBER: 60/069,334
PRIOR APPLICATION NUMBER: 60/069,334
PRIOR FILING DATE: December 11, 1997
PRIOR APPLICATION NUMBER: 60/06935
PRIOR APPLICATION NUMBER: 60/069,278
PRIOR APPLICATION NUMBER: 60/069,278
PRIOR APPLICATION NUMBER: 11, 1997
                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/09/944,896
CURRENT FILING DATE: 2001-08-31
                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: WOOD, WILLIAM
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P2548P1C1
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                                                                                                      Apprication NUMBER: 60/069,425
FILING DATE: December 12 100
                                                                      APPLICATION NUMBER: 60/069,696 FILING DATE: December 16, 1997
                                           APPLICATION NUMBER: 60/069,
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APPLICATION NUMBER:
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LENGTH: 455
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APPLICATION NUMBER: 09/218,517
APPLICATION NUMBER: 00/218,311
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APPLICATION NUMBER: PCT/US00/32678
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FILING DATE: June 22, 1999
APPLICATION NUMBER: PCT/US99/21090
FILING DATE: September 15, 1999
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APPLICATION NUMBER: 60/146, 222
FILING DATE: July 28, 1999
APPLICATION NUMBER: PCT/US98/19330
FILING DATE: September 16, 1998
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APPLICATION NUMBER: 60/112,850
FILING DATE: December 1
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FILING DATE: February 9, 1998
APPLICATION NUMBER: 60/074,09
FILING DATE: February 9, 1998
APPLICATION NUMBER: 60/075,94
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FILING DATE: March 30,
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APPLICATION NUMBER: PCT/US00/04414
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FILING DATE: No. US20020168715Alember 30, 1999
APPLICATION NUMBER: PCT/US99/28313
FILING DATE: No. US20020168715Alember 30, 1999
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FILING DATE: March 3, 1999
APPLICATION NUMBER: PCT/US99/12252
FILING DATE: June 22, 1999
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FILING DATE: December 16, 1998
APPLICATION NUMBER: 60/113,296
FILING DATE: December 22, 1998
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NOS: 120
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CURRENT APPLICATION NUMBER: US/09/944,944
CURRENT FILING DATE: 2001-09-26
PRIOR APPLICATION NUMBER: 09/866,028
PRIOR APPLICATION NUMBER: 60/067,411
PRIOR APPLICATION NUMBER: 60/067,411
PRIOR FILING DATE: December 3, 1997
PRIOR APPLICATION NUMBER: 60/069,334
PRIOR PILING DATE: December 11, 1997
PRIOR APPLICATION NUMBER: 60/069335
PRIOR APPLICATION NUMBER: 60/069335
PRIOR FILING DATE: December 11, 1997
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US-09-944-944-50
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FILING DATE: December 11, 1997
APPLICATION NUMBER: 60/069,278
FILING DATE: December 11, 1997
                                 FILING DATE: December 16, 1 APPLICATION NUMBER: 60/069,
                                                                        APPLICATION NUMBER: 60/069,696
                                                                                           APPLICATION NUMBER: 60/069,425 FILING DATE: December 12, 1997
FILING DATE: December 16, 1 APPLICATION NUMBER: 60/069,
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Grimaldi, Christopher
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Goddard, Audrey
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ORGANISM: Homo Sapien
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IOR FILING DATE: December 16, 1998
IOR APPLICATION NUMBER: 09/218,517
IOR FILING DATE: December 22, 1998
IOR APPLICATION NUMBER: 09/254,311
IOR FILING DATE: March 3, 1999
OR APPLICATION NUMBER: PCT/US99/12252
OR FILING DATE: June 22, 1999
OR APPLICATION NUMBER: PCT/US99/21090
OR APPLICATION NUMBER: PCT/US99/21090
OR FILING DATE: September 15, 1999
OR APPLICATION NUMBER: PCT/US99/21090
OR FILING DATE: September 15, 1999
OR APPLICATION NUMBER: PCT/US99/21090
                 1 MLHPETSPGRGHLLAVLLALLGTTWAEVWPPQLQEQAPMAGALNRKESFLLLSLHNRLRS 60
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FILING DATE: May 22, 2000
APPLICATION NUMBER: PCT/US00/20710
FILING DATE: July 28, 2000
APPLICATION NUMBER: PCT/US00/32678
FILING DATE: December 1, 2000
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FILING DATE: No. US20020173463Alember 30, 1999
APPLICATION NUMBER: PCT/US99/28313
FILING DATE: No. US20020173463Alember 30, 1999
APPLICATION NUMBER: PCT/US99/28301
FILING DATE: December1, 1999
FILING DATE: December1, 1999
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APPLICATION NUMBER: 60/074,092
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FILING DATE: March 2, 2000
APPLICATION NUMBER: PCT/US00/08439
FILING DATE: March 30, 2000
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CURRENT FILING DATE: 2001-05-25
Prior application data removed - consult I
NUMBER OF SEQ ID NOS: 120
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TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P2548P1C1
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Tumas, Daniel
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CURRENT APPLICATION NUMBER: US/09/944,449
CURRENT FILING DATE: 2001-09-26
PRIOR APPLICATION NUMBER: 09/866,028
PRIOR FILLING DATE: 2001-05-25
PRIOR FILLING DATE: December 3, 1997
PRIOR APPLICATION NUMBER: 60/069,334
PRIOR APPLICATION NUMBER: 60/069,334
PRIOR FILING DATE: December 11 1007
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                                                                     FILING DATE: Decembe APPLICATION NUMBER:
                                                                                   APPLICATION NUMBER: 60/069,696
FILING DATE: December 16, 1997
                                                                                                                       APPLICATION NUMBER: 60/069,425
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APPLICATION NUMBER: 60/069,278
FILING DATE: December 11, 1997
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PRIOR FILING DATE: March 3, 1999
PRIOR APPLICATION NUMBER: PCT/US99/12252
PRIOR FILING DATE: June 22, 1999
PRIOR FILING DATE: June 22, 1999
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FILING DATE: MATCH 30, 2000
APPLICATION NUMBER: PCT/US00/14042
FILING DATE: MAY 22, 2000
APPLICATION NUMBER: PCT/US00/20710
FILING DATE: July 28, 2000
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                                                                                                                                                                                                                                                                           APPLICATION NUMBER: PCT/US01/06520 FILING DATE: February 28, 2001
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APPLICATION NUMBER: 09/218,517
FILING DATE: December 22, 1998
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FILING DATE: July 28, 1999
APPLICATION NUMBER: PCT/US98/19330
FILING DATE: September 16, 1998
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CURRENT APPLICATION NUMBER: US/09/944,457
CURRENT FILING DATE: 2001-09-26
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                                       PRIOR APPLICATION NUMBER: 60/069,694
PRIOR FILING DATE: December 16, 1997
PRIOR APPLICATION NUMBER: 60/069,702
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                          PRIOR FILING DATE:
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OR FILING DATE: December 11, 1997
OR APPLICATION NUMBER: 60/069,278
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OR APPLICATION NUMBER: 60/069,425
OR FILING DATE: December 12, 1997
OR APPLICATION NUMBER: 60/069,696
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Wood, William
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PRIOR APPLICATION NUMBER: PCT/US99/30095
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PRIOR FILING DATE: MAICH 3, 1999
PRIOR APPLICATION NUMBER: PCT/US99/12252
PRIOR FILING DATE: June 22, 1999
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FILING DATE: No. US20020110859Alember
APPLICATION NUMBER: PCT/US99/28313
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APPLICATION NUMBER: 09/218,517
FILING DATE: December 22, 1998
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APPLICATION NUMBER: PCT/US98,
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CURRENT APPLICATION NUMBER: US/09/944,862
CURRENT FILING DATE: 2001-09-26
PRIOR APPLICATION NUMBER: 09/866,028
PRIOR FILING DATE: 2001-05-25
PRIOR APPLICATION NUMBER: 60/067,411
PRIOR APPLICATION NUMBER: 60/069,334
PRIOR FILING DATE: December 11, 1997
PRIOR FILING DATE: December 11, 1997
PRIOR FILING DATE: December 11, 1997
PRIOR APPLICATION NUMBER: 60/069,335
PRIOR FILING DATE: December 11, 1997
PRIOR APPLICATION NUMBER: 60/069,278
PRIOR APPLICATION NUMBER: 60/069,278
PRIOR FILING DATE: December 12, 1997
PRIOR FILING DATE: December 12, 1997
PRIOR APPLICATION NUMBER: 60/069,696
PRIOR FILING DATE: December 16, 1997
PRIOR APPLICATION NUMBER: 60/069,696
PRIOR FILING DATE: December 16, 1997
PRIOR APPLICATION NUMBER: 60/069,694
PRIOR FILING DATE: December 16, 1997
PRIOR FILING DATE: DECEMBER: 60/069, 870
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OR FILING DATE: December 16, 1998
OR APPLICATION NUMBER: 09/218,517
OR FILING DATE: December 22, 1998
OR APPLICATION NUMBER: 09/254,311
OR FILING DATE: MARCH 3, 1999
OR APPLICATION NUMBER: PCT/US99/12252
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                                                                                            PRIOR APPLICATION NUMBER: 09/866,028
PRIOR FILLING DATE: 2001-05-25
PRIOR PELICATION NUMBER: 60/067,411
PRIOR FILLING DATE: December 3, 1997
PRIOR APPLICATION NUMBER: 60/069,334
PRIOR TILING DATE: December 11, 1997
PRIOR APPLICATION NUMBER: 60/069335
PRIOR FILLING DATE: December 11, 1997
PRIOR PELICATION NUMBER: 60/069,278
PRIOR FILLING DATE: December 11, 1997
PRIOR PELICATION NUMBER: 60/069,425
PRIOR APPLICATION NUMBER: 60/069,425
PRIOR APPLICATION NUMBER: 60/069,696
PRIOR FILLING DATE: December 16, 1997
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CURRENT FILING DATE: 2001-09-26
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                                                         APPLICATION NUMBER: 60/069,694
FILING DATE: December APPLICATION NUMBER: 60
                                        FILING DATE: December 16, 1 APPLICATION NUMBER: 60/069,
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o. US20020127643A1
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TYPE: PRT
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                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: PCT/US01/06520 FILING DATE: February 28, 2001
                                                                                                                                                                                                                                                                                                                                                                                               AFFLIANG DATE: March 30, 2000
AFFLICATION NUMBER: PCT/US00/14042
FILING DATE: May 22, 2000
APPLICATION NUMBER: PCT/US00/20710
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APPLICATION NUMBER: PCT/US99/28409
FILING DATE: No. US20020127643Alember
APPLICATION NUMBER: PCT/US99/281
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FILING DATE: February 25, 1998
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NUMBER: PCT/US00/05841
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CURRENT APPLICATION NUMBER: US/09/945,015
CURRENT FILING DATE: 2001-09-26
PRIOR APPLICATION NUMBER: 09/866,028
PRIOR FILING DATE: 2001-05-25
PRIOR FILING DATE: December 3, 1997
PRIOR FILING DATE: December 11, 1997
PRIOR APPLICATION NUMBER: 60/69,334
PRIOR APPLICATION NUMBER: 60/069,334
PRIOR FILING DATE: December 11, 1997
PRIOR FILING DATE: December 11, 1997
PRIOR FILING DATE: December 11, 1997
PRIOR FILING DATE: December 10, 1997
PRIOR FILING DATE: DECEMBER: 60/069,3278
PRIOR APPLICATION NUMBER: 60/069,278
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APPLICANT: Botste;
APPLICANT: Eaton, I
APPLICANT: Ferrar;
APPLICANT: Filvar
APPLICANT: Gerrit
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TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE
TITLE OF INVENTION: ACIDS ENCODING THE SAME
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APPLICATION |
                APPLICATION NUMBER: 60/069,702 FILING DATE: December 16, 1997
                                                   APPLICATION NUMBER: 60/069,694 FILING DATE: December 16, 1997
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Grimaldi, Christopher
Gurney, Austin
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Kljavin, Ivar
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Gerritsen, Mary
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LENGTH: 45
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PRIOR APPLICATION NUMBER: PCT/US00/05841
PRIOR FILING DATE: March 2, 2000
PRIOR APPLICATION NUMBER: PCT/US00/08439
PRIOR FILING DATE: March 30, 2000
PRIOR FILING DATE: March 30, 2000
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PRIOR APPLICATION NUMBER: PCT/US99/28409
PRIOR FILING DATE: NO. US20020132768A1ember 30, 1999
PRIOR APPLICATION NUMBER: PCT/US99/28313
PRIOR FILING DATE: NO. US20020132768A1ember 30, 1999
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FILING DATE: December 1, 1998
APPLICATION NUMBER: 09/216,021
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APPLICATION NUMBER: 60/074,092
FILING DATE: February 4 1000
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APPLICATION NUMBER: 60/113,296
FILING DATE: December 22, 1998
APPLICATION NUMBER: 60/146,222
FILING DATE: **-1*- ^^
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APPLICATION NUMBER: 60/112,
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APPLICATION NUMBER: 60/069,334
FILING DATE: December 11, 1997
                                                                                       APPLICATION NUMBER: 60/069,425
FILING DATE: December 12, 1997
APPLICATION NUMBER: 60/069,696
FILING DATE: December 16, 1997
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FILING DATE: December 11, 199
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                                                                  FILING DATE: December 16, 1997 APPLICATION NUMBER: 60/069,694
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FILING DATE: Decembe APPLICATION NUMBER:
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5. US20020132981A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                        Wood, William
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gurney, Austin
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PRIOR FILING DATE: December 1, 2000
PRIOR PILING DATE: February 28, 2001
NUMBER OF SEQ ID NOS: 120
SEQ ID NO SCO
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                                                                                                                                                                        TYPE: PRT
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                                                                     hes 455;
FILING DATE: February 25, 1998
APPLICATION NUMBER: 60/112/850
FILING DATE: December 16, 1998
APPLICATION NUMBER: 60/113,296
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FILING DATE: December 22, 1998
APPLICATION NUMBER: 09/254,311
FILING DATE: March 3, 1999
APPLICATION NUMBER: PCT/US99/12252
FILING DATE: June 22, 1999
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FILING DATE: September 15, 1999
APPLICATION NUMBER: PCT/US99/28409
FILING DATE: No. US20020132981Alember 30,
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APPLICATION NUMBER: PCT/US00/03565
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APPLICATION NUMBER: PCT/US00/04414
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61 WVQPPAADMRRLDWSDSLAQLAQARAALCGIPTPSLASGLWRTLQVGWNMQLLPAGLASF

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APPLICATION NUMBER: 60/068,

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CURRENT APPLICATION NUMBER: US/09/944,097 CURRENT FILING DATE: 2001-08-31
                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P2548P1C1
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; TYPE: PRT
; ORGANISM: Homo Sapien
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61 WVQPPAADMRRLDWSDSLAQLAQARAALCGIPTPSLASGLWRTLQVGWNMQLLPAGLASF
                                                                     APPLICATION NUMBER: PCT/US99/28409
FILING DATE: NO. US20020133675Alember 30,
APPLICATION NUMBER: PCT/US99/28313
FILING DATE: NO. US20020133675Alember 30,
APPLICATION NUMBER: PCT/US99/28301
FILING DATE: December1, 1999
APPLICATION NUMBER: PCT/US99/30095
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APPLICATION NUMBER: PCT/US00/20710
APPLICATION NUMBER: PCT/US00/20710
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APPLICATION NUMBER: PCT/US00/04414
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FILING DATE: March 3,
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FILING DATE: December 1, 1998
APPLICATION NUMBER: 1, 1998
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APPLICATION NUMBER: 60/113,296
FILING DATE: December 22, 1998
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FILING DATE: February 9, 1998
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RESULT 12 US-09-944-097-50

GENERAL INFORMATION:

APPLICANT:

Napier, Mary Kljavin, Ivar

APPLICANT: APPLICANT: APPLICANT:

Gurney, Austin Hillan, Kenneth

Grimaldi,Christopher

APPLICANT: APPLICANT:

Roy, Margaret Tumas, Daniel Wood, William

APPLICANT: APPLICANT: APPLICANT:

Goddard, Audrey Gerritsen, Mary Filvaroff, Ellen Eaton, Dan

APPLICANT:

APPLICANT: APPLICANT:

Ferrara, Napoleone Botstein, David Kevin

PRIOR

APPLICATION NUMBER: 60/069,694
FILLING DATE: December 16, 1997
APPLICATION NUMBER: 60/069,702
FILING DATE: December 16, 1997
APPLICATION NUMBER: 60/069,870

APPLICATION NUMBER: 60/069,

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FILING DATE:

PRIOR PRIOR

OR APPLICATION NUMBER: 60/069,334
OR FILING DATE: December 11, 1997
OR APPLICATION NUMBER: 60/069335
OR FILING DATE: December 11, 1997
OR APPLICATION NUMBER: 60/069,278
OR APPLICATION NUMBER: 60/069,278
OR FILING DATE: December 11, 1997
OR APPLICATION NUMBER: 60/069,696
OR FILING DATE: December 12, 1997
OR APPLICATION NUMBER: 60/069,696
OR FILING DATE: December 16, 1997
OR APPLICATION NUMBER: 60/069,696
OR FILING DATE: December 16, 1997
OR APPLICATION NUMBER: 60/069,696
OR FILING DATE: December 16, 1997

APPLICATION NUMBER: 09/866,028 FILING DATE: 2001-05-25

Sequence 50, Application US/09944097 Patent No. US20020133675A1

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PRIOR APPLICATION NUMBER: 60/069335
PRIOR FILING DATE: December 11, 1997
PRIOR PRIOR PRICATION NUMBER: 60/069,278
PRIOR FILING DATE: December 11, 1997
PRIOR APPLICATION NUMBER: 60/069,425
PRIOR FILING DATE: December 12, 1997
PRIOR APPLICATION NUMBER: 60/069,696
PRIOR FILING DATE: December 16, 1997
PRIOR FILING DATE: December 16, 1997
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CURRENT FILING DATE: 2001-09-26
PRIOR APPLICATION NUMBER: 09/866,028
PRIOR FILING DATE: 2001-05-25
PRIOR APPLICATION NUMBER: 60/067,411
PRIOR APPLICATION NUMBER: 60/069,334
PRIOR APPLICATION NUMBER: 60/069,334
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                                                                       APPLICATION NUMBER: 60/069,694
FILING DATE: December 16, 1997
APPLICATION NUMBER: 60/069,702
FILING DATE: December 16, 1997
FILING DATE: December 17, 1 APPLICATION NUMBER: 60/069, FILING DATE: December 17, 1
                                  APPLICATION NUMBER: 60/069, FILING DATE: December 17, 1
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Wood, William
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Grimaldi, Christopher
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PRIOR FILING DATE: December 16, 1998
PRIOR APPLICATION NUMBER: 09/218,517
PRIOR FILING DATE: December 22, 1998
PRIOR PRIOR APPLICATION NUMBER: 09/254,311
PRIOR PILING DATE: March 3, 1999
PRIOR PILING DATE: March 3, 1999
PRIOR PILING DATE: March 22, 1999
PRIOR APPLICATION NUMBER: PCT/US99/12252
PRIOR APPLICATION NUMBER: PCT/US99/2109
PRIOR PILING DATE: September 15, 1999
PRIOR APPLICATION NUMBER: PCT/US99/28409
PRIOR APPLICATION NUMBER: PCT/US99/28409
PRIOR APPLICATION NUMBER: PCT/US99/28409
PRIOR FILING DATE: NO. US20020142419Alember 30
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PRIOR FILING DATE: February 25, 1998
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APPLICATION UNMBER: PCT/US00/05841
FILING DATE: March 2, 2000
APPLICATION UNMBER: PCT/US00/08439
FILING DATE: March 30, 2000
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FILING DATE: May 22, 2000
APPLICATION NUMBER: PCT/US00/20710
FILING DATE: July 28, 2000
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FILING DATE: December1, 1999
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                                 PRIOR APPLICATION NUMBER: 09/866,028
PRIOR FILING DATE: 2001-05-25
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PRIOR APPLICATION NUMBER: 60/067,411
PRIOR PILING DATE: December 3, 1997
PRIOR APPLICATION NUMBER: 60/069,334
PRIOR APPLICATION NUMBER: 60/069,334
PRIOR PILING DATE: December 11, 1997
PRIOR APPLICATION NUMBER: 60/069,278
PRIOR APPLICATION NUMBER: 60/069,278
PRIOR APPLICATION NUMBER: 60/069,425
PRIOR FILING DATE: December 11, 1997
PRIOR APPLICATION NUMBER: 60/069,694
PRIOR PILING DATE: December 16, 1997
PRIOR APPLICATION NUMBER: 60/069,694
PRIOR FILING DATE: December 16, 1997
PRIOR APPLICATION NUMBER: 60/069,870
PRIOR PILING DATE: December 16, 1997
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CURRENT FILING DATE: 2001-09-26
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TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND
TITLE OF INVENTION: ACIDS ENCODING THE SAME
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FILING DATE: APPLICATION 1
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Gurney,Austin
Hillan,Kenneth
Kljavin,Ivar
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Roy, Margaret
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                                                                                                                                                                        Query Match
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                                                                                  1 MLHPETSPGRGHLLAVLLALLGTTWAEVWPPQLQEQAPMAGALNRKESFLLLSLHNRLRS
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APPLICATION NUMBER: PCT/US00/14042
FILING DATE: May 22, 2000
APPLICATION NUMBER: PCT/US00/20710
FILING DATE: July 28, 2000
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FILING DATE: No. US20020142958Alember 30, 1999
APPLICATION NUMBER: PCT/US99/28301
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FILING DATE: MARCh 3, 1999
APPLICATION NUMBER: PCT/US99/12252
FILING DATE: June 22, 1999
APPLICATION NUMBER: PCT/US99/21090
FILING DATE: September 15, 1999
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FILING DATE: December 16, 1998
APPLICATION NUMBER: 09/218,517
FILING DATE: December 22,1998
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NUMBER: PCT/US00/05841
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CURRENT APPLICATION NUMBER: US/09/944,654
CURRENT FILING DATE: 2001-09-26
PRIOR APPLICATION NUMBER: 09/866,028
PRIOR FILING DATE: 2001-05-28
PRIOR APPLICATION NUMBER: 60/067,411
PRIOR APPLICATION NUMBER: 60/067,411
PRIOR FILING DATE: December 3, 1997
PRIOR PRIOR FILING DATE: December 11, 1997
PRIOR APPLICATION NUMBER: 60/069,335
PRIOR FILING DATE: December 11, 1997
PRIOR APPLICATION NUMBER: 60/069,278
PRIOR FILING DATE: December 11, 1997
PRIOR APPLICATION NUMBER: 60/069,425
PRIOR APPLICATION NUMBER: 60/069,696
PRIOR FILING DATE: December 12, 1997
PRIOR APPLICATION NUMBER: 60/069,696
PRIOR FILING DATE: December 12, 1997
PRIOR APPLICATION NUMBER: 60/069,696
PRIOR FILING DATE: December 12, 1997
PRIOR APPLICATION NUMBER: 60/069,696
PRIOR FILING DATE: December 16, 1997
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APPLICANT:
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                                                          APPLICATION NUMBER: 60/069,694
FILING DATE: December 16, 1997
APPLICATION NUMBER: 60/069,702
FILING DATE: December 16, 1997
APPLICATION NUMBER: 60/069,870
APPLICATION NUMBER: 60/069,870
FILING DATE: Decembe APPLICATION NUMBER: FILING DATE: Decembe
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PRIOR APPLICATION NUMBER: 60/074,086
PRIOR FILING DATE: February 9, 1998
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PRIOR FILING DATE: February 0
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PRIOR FILING DATE: February 28, 2001
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PRIOR APPLICATION NUMBER: PCT/US00/20710
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PRIOR FILING DATE: December 1, 1998
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PRIOR APPLICATION NUMBER: 60/112,850
PRIOR FILING DATE: December 16, 1998
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ORGANISM: Homo Sapien
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61 WVQPPAADMRRLDWSDSLAQLAQARAALCGIPTPSLASGLWRTLQVGWNMQLLPAGLASF
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es 455; Conserv
                                                                      FILING DATE: September 15, 1999
APPLICATION NUMBER: PCT/US99/28409
FILING DATE: NO. US20020142959Alember 30, 1999
APPLICATION NUMBER: PCT/US99/28313
FILING DATE: No. US20020142959Alember 30, 1999
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APPLICATION NUMBER: PCT/US00/32678
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APPLICATION NUMBER: 09/218,517
FILING DATE: December 22, 1998
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PGCV_BOVIN
AEG_RAT
VA5_POLEY
PR1_ARATH
CRVP_TRIMU
VA5_VESMA
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45	44	43	42	41	40	39	38	37	36	35	34
165	165.5	166	167	168	168.5	168.5	169	170	170	171	173
ნ. ნ	6.5	6.6	6.6	6. 6	6.7	6.7	6.7	6.7	6.7	6.8	6.8
168	799	227	167	204	2321	912	204	2415	175	168	883
Ъ	\vdash	Н	Н	\vdash	\vdash	Н	ш	Н	ш	<u></u>	<u> </u>
PR1B_TOBAC	ITBN_DROME	VA5_VESVU	PRMS_MAIZE	VA5_VESGE	NTC3_HUMAN	PGCB_BOVIN	VA5_VESMC	PGCA_HUMAN	PR1A_LYCES	PR1A_TOBAC	PGCB_RAT
PU/U53 nicotiana t	027591 drosophila	Q05110 vesputa vui	Q00008 zea mays (m	P35784 vespula ger	Q9um47 homo sapien	Q28062 bos taurus	P35760 vespula mac	P16112 homo sapien	Q08697 Lycopersico	P08299 nicotiana t	P55068 rattus norv

ALIGNMENTS

DR DR KW	DR DR	DR DR	DR	DR R	66	88	38	38	88	38	38	38	38	RL	RT	RT	RX	R R D Z	2 2 2	R 2	RA	RX	R R P	8 K	388	S S	DI DI	DA C	CRS3	RESHLT
E; PS01009 E; PS01010 Protein; Si	V5/Tpx1; 1.	- H C	P04284; 1CFE:	EMBL; X95240; CAA64527.1; EMBL; X94323; CAA63984.1;	or send an email to license@isD-sib.cn).	requires a license agreement (See http://www.	<pre>-profit institutions as long this statement is not removed</pre>	the European Bioinformatics Institute. There are no restrictions on its	SWISS-PROT entry is copyright. It is produced thro	! ·	EPIDIDYMIS, OVARY, THYMUS AND COLON. -!- STMILARITY: BELONGS TO A FAMILY THAT GROUPS MAMMALIAN SCP/TPX1;	: SALIV	-!- SUBCELLULAR LOCATION: SECRETED; IN NEUTROPHILS, LOCALIZED IN	S Lett. 380:246-250(1996).	neutrophils with similarity to a numan testis-specific gene product and a rodent sperm-coating glycoprotein.";	"SGP28, a novel matrix glycoprotein in specific granules of human	MEDLINE-96186934; PubMed-8601434;	SHOULENCE FROM N.A.		"The human cysteine-rich secretory protein (CRISP) ramity. Frimary structure and tissue distribution of CRISP-1, CRISP-2 and CRISP-3.";		MEDLINE-96270732; PubMed-8665901; Roostermann D.,	[1] SEQUENCE FROM N.A.		, M	CRISP3.	01-OCT-1996 (Rel. 34, Last sequence update) 15-JUN-2002 (Rel. 41, Last annotation update) Cysteine-rich secretory protein-3 precursor (CRISP-3) (SGP28 protein).		HUMAN CRS3_HUMAN STANDARD; PRT; 245 AA.	

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Best Local
                This SWISS-PROT entry is copyright. It is produced through a collaboratio between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on it use by non-profit institutions as long as its content is in no was modified and this statement is not removed. Usage by and for commercial modified and this statement is not removed.
                                                                                                                      Hardy D.M., Huang T.T.F. Jr., Driscoll W.J., Tung K.S.K., Wild G.C.; "Purification and characterization of the primary acrosomal autoantigen of guinea pig epididymal spermatozoa."; Biol. Reprod. 38:423-437(1988).
-!- TISSUE SPECIFICITY: TESTIS.
-!- SIMILARITY: BELONGS TO A FAMILY THAT GROUPS MAMMALIAN SCP/TPX1; INSECTS AG3/AG5; FUNGI SC7/SC14 AND PLANTS PR-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TPX1_CAVPO
Q60477;
01-NOV-1997
                                                                                                                                                                                                                                                                                                    "Autoantigen 1 of the guinea pig sperm acrosome is the homologue mouse Tpx-1 and human Tpx1 and is a member of the cysteine-rich secretory protein (CRISP) family."; Mol. Reprod. Dev. 44:221-229(1996).
                                                                                                                                                                                                                                                   SEQUENCE OF 22-41.
MEDLINE=88193219; PubMed=3282555;
                                                                                                                                                                                                                                                                                                                                                                                          STRAIN=Hartley; TISSUE=Testis; MEDLINE=96354287; PubMed=9115720;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cavia porcellus (Guinea pig).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleosto
Mammalia; Eutheria; Rodentia; Hystricognathi; Caviidae; Cavia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
01-NOV-1997 (Rel. 35, Last annotation update)
Testis-specific protein TPX-1 precursor (Autoantigen 1) (25 kDa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAVPO
                                                                                                                                                                                                                                                                                                                                                                             Foster J.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        acrosomal autoantigen) (AA1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=10141;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     124 VSLWFAEGQRYSHAAGECARNATCTHYTQLVWATSSQLGCGRHLCSAGQTAIEAFVCAYS 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   59
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ISTCHCHCPPGYTGRYCQVRCSLQCVHGRFREE-ECSCVC 282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PAGNWA--NRLYVPYEQGAPCASCPDNCD------DGLC---TNGCK-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PGGNWEVNGKTIIPYKKGAWCSLCTASVSGCFKAWDHAGGLCEVPRNPCRMSCQNHGRLN 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IQSWFDEYNDFDFGVGPKTPNAVVGHYTQVVWYSSYLVGCGNAYCPNQKVLKYYYVCQYC 172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NMLKMEWNKEAAANAQKWANQCNYRHSNPKDRMTS----LKCGENLYMSSAS-SSWSQA 112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DMRRLDWSDSLAQLAQARAALCGI----PTPSLASGLWRTLQVGWNMQLLPAGLASFVEV 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
76; Conser
requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              245 AA;
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239
106
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27.1%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 252; DB 1;
Pred. No. 2.2e-13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CYSTEINE-RICH SECRETORY PROTEIN-3.
N-LINKED (GLCNAC...) (POTENTIAL)
S -> P (IN DBSNR: 495335).
/FTId-VAR_011718.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A -> S (IN DBSNP:1864312).
/FTId=VAR_011719.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               . 52;
                                                                                   a collaboration
                    commercial
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В
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Best Local
                                                                                                                                                                  Genomics 28:405-410(1995).
                                                                                                                                                                                          "Structure and chromosomal localization of the mouse neurocan gene.";
                                                                                                                                                                                                                Rauch U., G
Faessler R.
                                                                                                                                                                                                                                           STRAIN=BALB/c; TISSUE=Brain; MEDLINE=96039250; PubMed=749
                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                     01-OCT-1996 (Rel. 34, Created)
01-OCT-1996 (Rel. 34, Last sequence update)
16-OCT-2001 (Rel. 44). Last annotation update)
                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                       NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                  Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                    CSPG3 OR NCAN
                                                                                                                                                                                                                                                                                                                                                                            Neurocan core protein precursor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        InterPro; IPR001283; Allrgn_V5/Tpx1.

Pfam; PF00188; SCP; 1.

PRINTS; PR00837; V5TPXLIKE.

ProDom; PD000542; Allrgn_V5/Tpx1; 1.

SMART; SM00198; SCP; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             PGCN_MOUSE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; U35712; AAC52616.1; -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          201 LCTNSCEYEDLL--SNCE-------SLKNTAGCEH-QLLVEKCKATC-----R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      239 CEDKIY 244
TISSUE SPECIFICITY: BRAIN.

TISSUE SPECIFICITY: BRAIN.

SIMILARITY: CONTAINS 1 IMMUNOGLOBULIN-LIKE V-TYPE DOMAIN.

SIMILARITY: CONTAINS 2 EGF-LIKE DOMAINS.

SIMILARITY: CONTAINS 2 LINK DOMAINS.

SIMILARITY: CONTAINS 1 C-TYPE LECTIN FAMILY DOMAIN.

SIMILARITY: CONTAINS 1 SUSHI (SCR) DOMAIN.

SIMILARITY: BELONGS TO THE AGGRECAN/VERSICAN PROTEOGLYCAN FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         41 IINKHNQLRKSVTPPASNMLKMEWSREAAVNAQKWANRCTL-VHSNPDDRKTSTKCGENL 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            51
                                                                                                                                     AND N-CAM). CHONDROITIN
                                                                                                                                                   DEVELOPMENT BY BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CATKVH 296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PCRMSCQNHGRLNISTCHCHCPPGYTGRYCQVRCSLQCVHGRFREEECSCVCDIGYGGAQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -YMSSDPSSWSDAIQSWFDESQDFTFGVGPKSHNAVVGHYTQLVWYSSYLVGCGIAYCPN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OLLPAGLASFVEVVSLWFAEGQRYSHAAGECARNATCTHYTQLVWATSSQLGCGRHLCSA 170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LLSLHNRLRSWVQPPAADMRRLDWSDSLAQLAQARAALCGIPTPSLASGLWRTLQVGWNM 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QDSLKYYYVCQYCPAGNNVYTKNT--PYKQGIPCASCP----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GQTAIEAFVCAYSPGGNWEVNGKTIIPYKKGAWCSLCTASVSGCFKAWDHAGGLCEVPRN 230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         68;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                        Grimpe B., Kulbe G., Arnold-Ammer I., Beier
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     244 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                           STANDARD;
                                                                                                                                                                                                                                           PubMed=7490074;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21
244 T!
; 27248 MW;
                                                                                                                                                                                                                                                                                                              Chordata; Craniata; Vertebrata; Euteleostomi; Rođentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9.5%;
27.6%;
                                                                                                                                                  NEURONAL ADHESION AND NEURITE GROWTH DURING TO NEURAL CELL ADHESION MOLECULES (NG-CAM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       37; Mismatches
                                                                                                                                  SULFATE PROTEOGLYCAN; BINDS TO HYALURONIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 240; DB 1
Pred. No. 2e-12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TESTIS-SPECIFIC PROTEIN TPX-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                          1268 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 1;
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Pfam;
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PROSITE; PS01082; EGF_1; 3.

PROSITE; PS01186; EGF_2; 1.

PROSITE; PS01187; EGF_CA; 1.

PROSITE; PS01241; LINK; 2.

PROSITE; PS00615; C_TYPE_LECTIN_1; 1.

PROSITE; PS00615; C_TYPE_LECTIN_2; 1.

Glycoprotein; Hyaluronic acid; Proteoglycan; Immunoglobulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SMART;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pfam; PF00084; sushi; Pfam; PF00193; Xlink;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pfam;
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EGF-like doma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               InterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   InterPro; IPR001304; Lecti
InterPro; IPR000538; Link.
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                                                                                               SEQUENCE
                         Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PF00193; Xlink; 2.
mp; PD000918; Link; 2.
mp; SM00032; CCCp; 1.
mp; SM00034; CLECT; 1.
mp; SM000179; EGF_CA; 1.
mp; SM00001; EGF_Like; 1.
mp; SM00001; EGF_Like; 1.
mp; SM00445; LINK; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PF00047; ig;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PF00059; lectin_c; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        P00740;
                         Similarity
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IPR001881;
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IPR003006;
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IPR000561;
                                                                                                                                                                                                                                                                                                                                                                                   1036
1166
186
181
205
279
303
964
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1136
1167
1196
121
339
742
978
  Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Calcium;
                                                                                                                                         Asx_hydroxyl.
EGF-like.
EGF_2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ig_MHC.
                         9.3%;
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                                                                                                 137200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Repeat; Lectin; Sushi; Signal.
                                                                                                              BY SIMILARITY

BY SIM
  39;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IG-LIKE V-TYPE ILINK 1.
LINK 2.
LINK 2.
EGF-LIKE 1.
EGF-LIKE 2, CALC
C-TYPE LECTIN.
                                                                                                 W.
  Pred. No. 2.30
); Mismatches
                      Score 236;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SUSHI
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NEUROCAN CORE PROTEIN.
                                                                                                 3014E8E202A2FAEC
  2.3e-11;
ches 119;
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                                               Length 1268;
       58;
       Gaps
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RESULT 4
GLIP_HUMAN
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                                                                                                                               Proc. Natl. Acad. Sci. U.S.A. 95:2262-2266(1998).
-: TISSUE SPECIFICITY: HIGHLY EXPRESSED IN THE HUMAN BRAIN TUMOR,
-GLIOBLASTOMA MULTIFORM/ASTROCYTOMA, BUT NEITHER IN NORMAL FETAL
OR ADULT BRAIN TISSUE, NOR IN OTHER NERVOUS SYSTEM TUMORS.
-: SIMILARITY: BELONGS TO A FAMILY THAT GROUPS MAMMALIAN SCP/TPX1;
INSECTS AG3/AG5; FUNGI SC7/SC14 AND PLANTS PR-1.
                                                                                                                                                                                                                                                                       Szyperski T., Fernandez C., Mumenthaler C., Wuethrich K.; "Structure comparison of human glioma pathogenesis-related protein GlipR and the plant pathogenesis related protein P14a indicates a functional link between the human immune system and a plant defense
                                                                                                                                                                                                                                                                                                                                                                                                             Murphy E.V., Zhang Y., Zhu W., Biggs J.;
"The human glioma pathogenesis related protein is structurally
related to plant pathogenesis-related proteins and its gene is
expressed specifically in brain tumors.";
Gene 159:131-135(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          diverse species, neuronal origin."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE=Glial tumor;
MEDLINE=97128816; PubMed=8973356;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens (Human).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GLIPR OR RTVP1
                                                                                                                                                                                                                                                     system.
                                                                                                                                                                                                                                                                                                                                                                          STRUCTURE BY NMR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE OF 11-266 FROM N.A. MEDLINE=95331646; PubMed=7607567;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gene 180:125-130(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=9606;
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                                                                                                                                                                                                                                                                                                                                                   MEDLINE=98151500; PubMed=9482873;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GFICLCLPSYGGSLCEKDT----EGCDRGWHKFQGHCYRYFAHRRAWEDAERDCRRRAGH
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           T., Chen P., Furman F., Huynh N., Israel M.A.; P-1, a novel human gene with sequence similarity to genes of rse species, is expressed in tumor cell lines of glial but no
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LTSVHSPEEHKFI----
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RESULT
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Verto
Mammalia; Eutheria; Perissodactyla; Equidae;
                                                                                                                                                                                                                                                                                                                                                                                                                     O19010;
15-JUL-1998 (Rel. 36, Created)
15-JUL-1998 (Rel. 36, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation updat
                                                                                                                                                                                                                Biochim.
                                                                                                                                                                                                                              tract
                                                                                                                                                                                                                                 "Equine CRISP-3: primary structure and expression in the male genital
                                                                                                                                                                                                                                                                Schambony A., Gentzel M., Wolfes H., Raida M., Neumann
                                                                                                                                                                                                                                                                                               TISSUE-Ampul
                                                                                                                                                                                                                                                                                                                                                                                                        Cysteine-rich secretory protein-3 precursor (CRISP-3).
                                                                                                                                                                                                                                                    Toepfer-Petersen E.,
                                                                                                                                                                                                                                                                                 MEDLINE=98422318; PubMed=9748582;
                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=9796;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HORSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Equus caballus (Horse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           InterPro; IPR001283; Allrgn_V5/Tpx1 pfam; pF00188; SCP; 1. PRINTS; PR00837; V5TPXLIKE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CRS3_HORSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
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SMART; SM00198; SCP; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MIM; 602692;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           154 VWATSSQLGCGRHLCS--AGQTAIE---AFVCAYSPGGNWEVNGKTIIPYKKGAWCSLC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        142
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        send an email to license@isb-sib.ch).
                                                                                                                     AMPULLA AND THE SEMINAL VESICLE.
SIMILARITY: BELONGS TO A FAMILY THAT GROUPS MAMMALIAN SCP/TPX1;
INSECTS AG3/AG5; FUNGI SC7/SC14 AND PLANTS PR-1.
                                                                                                                                                              Chim. Biophys. Acta 1387:206-216(1998).
SUBCELLULAR LOCATION: SECRETED; IN NEUTROPHILS, LOCALIZED IN SPECIFIC GRANULES (BY SIMILARITY).
TISSUE SPECIFICITY: EXPRESSED IN THE SALIVARY GLAND, IN THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PNFTS-----LGENIWTGSVPIFSVSSAITNWYDEIQDYDFKTRICKK--VCGHYTQV 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EDFIKDCVRIHNKFRSEVKPTASDMLYMTWDPALAQIAKAWASNCQFSHNTRLKPPHKLH 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VWADSYKVGCAVQFCPKVSGFDALSNGAHFICNYGPGGNYPT-----WPYKRGATCSAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PSLASGLWRTLQVGWNMQLLPAGLASFVEVVSLWFAEGQRYSHAAGECARNATCTHYTQL 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ESFL--LLSLHNRLRSWVQPPAADMRRLDWSDSLAQLAQARAALCGIP---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               X91911; CAA63005.1; -. U16307; AAA82731.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     P04284; 1CFE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            58;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 266 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30342 MW; C04378085EFB2B7A CRC64;
                                                                                                                                                                                                                                                                                                                                                                Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 231; DB 1;
Pred. No. 1.2e-11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               T (IN REF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IITILVQLKYPNLVLLD -> DSETKSNVTTMLYIRLAHIS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 245
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A
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                                                                                                                                                                                                                                                                                                                                                   Equus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         62;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                 U.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -----T 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   195
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                      15-JUN-2002 (NELL. ST. (HLTx).
Helothermine precursor (HLTx).
Heloderma horridum horridum (Mexican beaded lizard).
Heloderma horridum horridum (Mexican beaded lizard).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Helodermatidae;
Mochca-Morales J., Martin B.M., Possani L.D.;
"Isolation and characterization of helothermine, a novel tox
Heloderma horridum horridum (Mexican beaded lizard) venom.";
Toxicon 28:299-309(1990).

Toxicon 28:299-309(1990).

Toxicon 28:299-309(1990).

Toxicon 28:299-309(1990).

Toxic that blocks ryanodine receptors. It is to mice; it causes lethargy, partial paralysis of rear limble lowering of body temperature.
                                                                                                                                        TISSUE=Venom;
                                                                                                                                                                                                     Morrissette J., Kraetzschmar J., Haendler B., El-Hayek Mochca-Morales J., Martin B.M., Patel J.R., Moss R.L., Schleuning W.-D., Coronado R., Possani L.D.; "Primary structure and properties of helothermine, a print blocks ryanodine receptors.";
                                                                                                                                                                                                                                                                                        TISSUE=Salivary gland;
MEDLINE=95375162; PubMed=7647234;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q91055;
01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
                                                                                                                      MEDLINE=90260878; PubMed=1693019;
                                                                                                                                                     SEQUENCE OF 20-39, AND CHARACTERIZATION
                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A., AND PARTIAL SEQUENCE
                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=8552;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              InterPro; IPR001283; Allrgn_V5/Tpx1.
Pfam; PF00118; SCP; I.
PRINTS; PR000837; V5TPXLIKE.
ProDom; PD000542; Allrgn_V5/Tpx1; 1.
SMART; SM00198; SCP; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Signal; Multigene family. SIGNAL 1 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE; PS01009; SCP_AG5_PR1_SC7_1; PR0SITE; PS01010; SCP_AG5_PR1_SC7_2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; AJ001400; CAP
HSSP; P04284; 1CFE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HELO_HELHO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       235
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     13 LLAVLLALLGTTWAEVWPPQLQEQAPMAGALNRKE-SFLLLSLHNRLRSWVQPPAADMRR 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   72 LDWSDSLAQLAQARAALCGIPTPSLASGLWRTLQVGWN--MQLLPAGLASFVEVVSLWFA 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3 LLPVLL-FLAAVLLPFFPASGQDPGFAALSITKSEVQKEIVNKHNDLRRTVSPLASNMLK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VNGKTIIPYKKGAWCS-----LCTAS-----VSGCFKAWDHAGGLCEVPRNPCRM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SCQNHGRL 242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VN-KINTPYEQGTPCARCPGNCDNGLCTNSCEYEDLVSNCDSLKKIAGCEHELLKENCKT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EVHDFKYGVGPKTPNAVVGHYTQVVWYSSYRVGCGIAYCPKQGTLKYYYVCQYCPAGNY-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EGQRYSHAAGECARNATCTHYTQLVWATSSQLGCGRHLCSAGQTAIEAFVCAYSPGGNWE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MQWDSKTATNAQNWANKCLLQHSKAEDRAVGTMKCGENLFMSSIP---NSWSDAIQNWHD 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            73;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                        J. 68:2280-2288(1995).
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245 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAA04729.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            245 C
; 27308 MW;
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29.4%;
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Pred. No. 1.9e-11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CYSTEINE-RICH SECRETORY PROTEIN-3: 893A4E87F402BA22 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                242 AA
                                                                                                                                                                                                                                                                    El-Hayek
                 of rear limbs and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 245;
                                                                                 novel toxin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                      a peptide toxin
                               It is toxic
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   nterPro; IPR001283; Allrgn_V5/Tpx1.
Pfam; PF00188; SCC; 1.
PRINTS; PR000837; V5TPXLIKE.
ProDom; PD000542; Allrgn_V5/Tpx1; 1.
SMART; SM00198; SCP; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -:- SUBCELLULAR LOCATION: Secreted.
-:- TISSUE SPECIFICITY: Produced by the venomous gland.
-:- SIMILARITY: BELONGS TO A FAMILY THAT GROUPS MAMMALIAN SCP/TPX1;
-INSECTS AG3/AG5; FUNGI SC7/SC14 AND PLANTS PR-1.
                                                                                                                                                                                                                        01-NOV-1997 (Rel. 35,
01-NOV-1997 (Rel. 35,
16-OCT-2001 (Rel. 40,
Hypothetical 35.0 kDa
                                                                                                                                                                                                                                                                                                                         CAEEL
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PROSITE; PS01010; SCP_AG5_PR1_SC7_2; FALSE_NEG.

Calcium channel inhibitor; Neurotoxin; Toxin; Signal.

SIGNAL 1 19 POTENTIAL.
               Caenorhabditis elegans.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; U13619; AAC59730.1; -
                                                                                                                                            NCBI_TaxID=6239
                                                                                                                                                                           Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                        YR81_CAEEL
Q09566;
                                                                            Kirsten J.;
                                                                                               STRAIN-Bristol N2;
                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                              Rhabditidae;
                                                                                                                                                                                                                                                                                                                                                                                        216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    120
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SWISS-PROT entry is copyright. It is produced through a collaboration
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KTIIPYKKGAWCSLCTASVSGCFKAWDHAGGLCEVPRNPCRMSCQNHGRLNISTCHCHCP 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    YFRFNYGPTAQNVMIGHYTQVVWYRSYELGCAIAYCPDQPTYKYYQVCQYCPGGN--IRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TWSNKTAQNAQRSANQCTLEHTSKEERTIDGVECGENL-FFSSAPYTWSYATQNWFDERK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LYLCLAAMLHQSEGEASP-----KLPGLMTSNPDQQTEITDKHNNLRRIVEPTASNMLKM
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                                                                                                                                                                                                                                                                                                                                                                                     -----DLKKQVGCGHPIMKDCMATCKC
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242 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                              Peloderinae;
                                                                                                                                                                                                                                                                                                        STANDARD;
                                                                                                                                                                                                                          40, Last annotation update) kDa protein F48E8.1 in chromosome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          242
                                                                                                                                                              Nematoda; Chromadorea; Rhabditida; Rhabditoidea; rinae; Caenorhabditis.
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Last annotation updat
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 226; DB 1;
Pred. No. 2.7e-11;
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                                                                                                                                                                                                                                                                                                          312
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               38;
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TPX1_HUMAN
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Best Local
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ProDom; PD000542; Allrgn_V5/Tpx1; 1.

SMART; SM001198; SCP; 1.

PROSITE; PS01009; SCP_AG5_PR1_SC7_1; FALSE_NEG.

PROSITE; PS01010; SCP_AG5_PR1_SC7_2; FALSE_NEG.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TPX1_HUMAN STANDARD; PRT; 245 AA. p16562; 01-AUG-1990 (Rel. 15, Created) 01-AUG-1990 (Rel. 15, Last sequence update) 16-OCT-2001 (Rel. 40, Last annotation update) Testis-specific protein TPX-1 precursor (Cystandard)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WormPep; F48E8.1; CE01953.
InterPro; IPR001283; Allrgn_V5/Tpx1.
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Kraetzschmar J., Haendler B., Eberspaecher U., Roostermann D., Donner P., Schleuning W.-D.;
"The human cysteine-rich secretory protein (CRISP) family. Primary structure and tissue distribution of CRISP-1, CRISP-2 and CRISP-3.";
Eur. J. Biochem. 236:827-836(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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                                                                                                                                                                                                                                                                                                                                                                                                                          Kasahara M., Gutknecht J., Brew K., Spurr N., Goodfellow P.N.; "Cloning and mapping of a testis-specific gene with sequence similarity to a sperm coating glycoprotein gene."; Genomics 5:527-534(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TISSUE=Testis;
MEDLINE=90129048; PubMed=2613236;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DOMAIN
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                                                                                                                                                                                                                                                                                           TISSUE=Testis;
                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=9606;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TVFVTARGQLYAMPAFTWASGDNGKCSNCPANAPACYQ-----GLCYMPKN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KHC----CGHYVQVVWAKTNLVGCGFSRCRDVQGVWGRGHRNVFVCHYNPQGN-----
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QRHADTCDFRHSR-----GRINVGENIWAAP--YSNYSDAISIWFNEVHNPRCGCNHAY 165
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PF00188; SCP;
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                                                                                                                                                                                                                                                                        CRS1_HUMAN STANDARD; PRT; 249 AA. P54107; Q13248; Q00698; Q14082; Q1-QCT-1996 (Rel. 34, Created) Q1-QCT-1996 (Rel. 34, Last sequence update) 15-JUN-2002 (Rel. 41, Last annotation update) Cysteine-rich secretory protein-1 precursor (Ac glycoprotein homolog) (AEG-like protein) (ARP).
      Kraetzschmar J.,
                                SEQUENCE FROM N.A. MEDLINE-96270732; I
                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                          Homo sapiens (Human)
                                                                                                                                                                                                                                                           AEGL1 OR CRISP-1.
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pfam; pF00188; SCP; 1.
pRINTS; PR00837; V5TPXLIKE.
proDom; PD000542; Allrgn_V5/Tpx1; 1.
SMART; SM00198; SCP; 1.
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PROSITE; PS01010; SCP_AG5_PR1_SC7_2; 1.
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TISSUE SPECIFICITY: TESTIS AND EPIDIDYMIS.
SIMILARITY: BELONGS TO A FAMILY THAT GROUPS MAMMALIAN SCP/TPX1;
INSECTS AG3/AG5; FUNGI SC7/SC14 AND PLANTS PR-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGGLCEVPRNPCRMSC 236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           YYYVCQYCPAGN-NMNRKN-TPYQQGTPCAGCPDDCDKGLCTNSCQYQDLLSNCDSLKNT 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EAFVCAYSPGGNWEVNGKTIIPYKKGAWCS-----LCTAS-----VSGCFKAWDH
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HGNC:12024; TPX1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22
243 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
      Haendler B.,
                                . (LONG AND SHORT ISOFORMS),
PubMed=8665901;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       27259 MW; C5FE698C449CFAD9 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 221; DB 1;
Pred. No. 6.9e-11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TESTIS-SPECIFIC PROTEIN TPX-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        POTENTIAL
Eberspaecher U.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 1; Length 243;
                                                                                                                                                                                                                                                                                                               (Acidic epididymal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           88; Indels
                                                              AND
Roostermann
                                                              SEQUENCE OF 22-41.
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VARSPLIC
VARSPLIC
CONFLICT
CONFLICT
                                                                                                                                                                                                                           SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                 PROSITE; PS01009; SCP_AG5_PR1_SC7_1; 1.

PROSITE; PS01010; SCP_AG5_PR1_SC7_2; 1.

Glycoprotein; Signal; Multigene family; Alternative splicing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                InterPro; IPR001283; Allrgn_V5/Tpx1.
pfam; pF00188; SCP; 1.
PRINTS; PR00837; V5TPXLIKE.
proDom; PD000542; Allrgn_V5/Tpx1; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -I- FUNCTION: MAY HAVE A ROLE IN SPERM-EGG FUSION AND MATURATION.
-I- SUBCELLULAR LOCATION: LOCATED IN THE LUMEN AND EPITHELIUM OF DISTAL DUCTUS EFFERENTES AND EPIDIDYMAL DUCTS, AND ON THE POSTACROSOMAL REGION OF THE SPERM HEAD.
-I- ALTERNATIVE PRODUCTS: 2 isoforms; a long form (shown here) and a short form/CRISP-1 delta; may be produced by alternative splicing.
-I- TISSUE SPECIFICITY: CAPUT, CORPUS, AND CAUDA REGIONS OF THE EPIDIDYMIS, THE DUCTUS DEFERENS, SPERM, AND SEMINAL PASMA.
-I- SIMILARITY: BELONGS TO A FAMILY THAT GROUPS MAMMALIAN SCE/TPX1; INSECTS AG3/AG5; FUNGI SC7/SC14 AND PLANTS PR-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hayashi M., Fujimoto S., Takano H., Ushiki T., Abe K., Ishikura H., Yoshida M.C., Kirchhoff C., Ishibashi T., Kasahara M., "Characterization of a human glycoprotein with a potential role in sperm-egg fusion: cDNA cloning, immunohistochemical localization, and chromosomal assignment of the gene (AEGLI)."; Genomics 32:367-374(1996).
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EMBL; X95238; CAA64525.1;
EMBL; S80310; AAB35899.1;
EMBL; D38451; BAA07483.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 This SWISS-PROT entry is copyright. It is produced through a collable between the Swiss Institute of Bioinformatics and the EMBL outst the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in
                                                                                                                                                                                                                                                                                                                                        CHAIN
                                                                                                                                                                                                                                                                                                                                                          SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                  SMART; SM00198;
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"The human cysteine-rich secretory protein (CRISP) family.
structure and tissue distribution of CRISP-1, CRISP-2 and Eur. J. Biochem. 236:827-836(1996).
[2]
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "Analysis of the human acidic epididymal glycoprotein-like molecule: isolation of cDNA and tissue localization."; hokkaido Igaku Zasshi 70:743-753(1995).
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       84
                                          91
                                                                                                         31 PQLQEQAPMAGALNRKESFLLLSLHNRLRSWVQPPAADMRRLDWSDSLAQLAQARAALCG
M----TESNPLERRLPNTFCGENMHMTSYPV-SWSSVIGVWYSESTSFKH--GEWTTTDDD 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       601193;
                                  IPTPSLASGLWRTLQ----VGWNMQLLPAGLASFVEVVSLWFAEGQRYSHAAGECAR---N 144
                                                                      PNVQEE-----IVNIHNALRRRVVPPASNMLKMSWSEEAAQNARIFSKYCD 83
                                                                                                                                                                    Similarity
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97
249
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230
178
179
                                                                                                                                                   Conservative
                                                                                                                                                                                                                           AA;
                                                                                                                                                                                                                                                                                                                                                                                                                               SCP; 1.
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                                                                                                                                                                                                                                                                               21
249
230
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249
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97
28481 MW;
                                                                                                                                                                8.4%; Score 213.5; DB 1
27.2%; Pred. No. 2.8e-10;
                                                                                                                                                                                                            CYSTELNE-nature
N-LINKED (GLONAC. . .).
N-LINKED (GLONAC. . .).
D (IN SHORT ISOFORM).
MISSING (IN SHORT ISOFORM).
K -> E (IN REF. 2 AND 3).
T -> A (IN REF. 2 AND 3).
T -> A (IN REF. 2 AND 3).
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                                                                                                                                                                                                                                                                                                                                   CYSTEINE-RICH SECRETORY PROTEIN-1
                                                                                                                                                   Mismatches
                                                                                                                                                                                   DB 1;
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16-OCT-2001 (Rel. 40, Last annotation update)
Neurocan core protein precursor (245 kDa early postnatal core
glycoprotein) [Contains: 150 kDa adult core glycoprotein].
CSPC3 OR NCAN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Margolis R.U., Grumet M.; "The neuronal chondroitin sulfate proteoglycan neurocan binds to neural cell adhesion molecules Ng-CAM/L1/NILE and N-CAM, and inhi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          regulated, aggs
J. Biol. Chem.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN-Sprague-Dawley; TISSUE-Brain; MEDLINE-92406907; PubMed-1326557;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
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01-OCT-1996 (Rel. 34,
01-OCT-1996 (Rel. 34,
16-OCT-2001 (Rel. 40,
                                                         use by non-profit institute. There are no restrictions modified and this statement is not removed. Usage by and for nentities requires a license agreement.
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                                               tities requires a license agreement (See http://www.isb-sib.ch/announce/send an email to license@isb-sib.ch).
                                                                                                                                                                        IN KIDNEY, LUNG, LIVER AND MUSCLE.

PTM: CONTAINS MOSTLY CHONDROITIN SULFATE, BUT ALSO N-LINKED AND O-LINKED OLIGOSACCHARIDES (BY SIMILARITY).

PTM: TWO ISOFORMS WERE FOUND THAT PROBABLY ARISE BY PROTEOLYTIC DEGRADATION. THE LARGE ISOFORM IS PREDOMINANT IN EARLY POSTNATAL BRAIN, THE SMALL ISOFORM IS FOUND IN ADULT BRAIN.

SIMILARITY: CONTAINS 1 IMMUNOCLOBULIN-LIKE V-TYPE DOMAIN.

SIMILARITY: CONTAINS 2 EGF-LIKE DOMAINS.

SIMILARITY: CONTAINS 2 LINK DOMAINS.

SIMILARITY: CONTAINS 1 SUSHI (SCR) DOMAIN.

SIMILARITY: CONTAINS 1 SUSHI (SCR) DOMAIN.

SIMILARITY: CONTAINS 1 SUSHI (SCR) DOMAIN.
                                                                                                            SWISS-PROT entry is copyright. It is produced through a collaboration ween the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its
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TISSUE SPECIFICITY: EARLY POSTNATAL AND ADULT BRAIN;
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 M97161;
                                                                                                                                                                                                                                                                                                                                                                                                         N-CAM). CHONDROITIN SULFATE PROTEOGLYCAN;
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                  AAC37679.1;
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PROSITE; PS00010; ASX_HYDROXYL; 1

PROSITE; PS00022; EGF_1; 3.

PROSITE; PS01186; EGF_2; 1.

PROSITE; PS01187; EGF_CA; 1.

PROSITE; PS01241; LINK; 2.
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Pfam; PF000193; X1ink; 2.
ProDom; PD000918; Link; 2.
SMART; SM00032; CCP; 1.
SMARR; SM00034; CLECT; 1.
SMART; SM00179; EGF_CA; 1.
SMART; SM00179; EGF_CA; 1.
SMART; SM00001; EGF_like; 1.
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PROSITE; PS50041; C_TYPE_LECTIN_2; 1.
Glycoprotein; Hyaluronic acid; Proteoglycan; Immunoglobulin domain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pfam;
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BY 
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Pred. No. 2e-0
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between
MGD; MGI:102553; Aeg1.
InterPro; IPR001283; F
Pfam; PF00188; SCP; 1
                                                                                                                    modified and this statement is not removed. entitles requires a license agreement (See or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                            Haendler B., Kratzschmar J., Theuring F., Schleuning W.D.;

Transcripts for cysteine-rich secretory protein-1 (CRISP-1; DE/AEG)
and the novel related CRISP-3 are expressed under androgen control i
the mouse salivary gland.;
Endocrinology 133:192-198(1993).

-i- FUNCTION: THIS PROTEIN IS SUPPOSED TO HELP SPERMATOZOA UNDERGO
FUNCTIONAL MATURATION WHILE THEY MOVE FROM THE TESTIS TO THE
DUCCTUS DEFERENS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-OCT-1993 (Rel. 27, Created)
01-OCT-1993 (Rel. 27, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Sperm-coating glycoprotein 1 precursor (SCP 1) (Acidic glycoprotein 1) (Cysteine-rich secretory protein-1) (Cr AEG1 OR AEG-1.
                                                                                                                                                                                      the European Bioinformatics Institute.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE=Submandibular gland; MEDLINE~93307144; PubMed=8319566;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Mouse submandibular glands express an androgen-regulated encoding an acidic epididymal glycoprotein-like molecule." Mol. Cell. Endocrinol. 89:25-32(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mizuki N., Kasahara M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=93246016; PubMed=1301383;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TISSUE-Submandibular gland
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=10090,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mus musculus (Mouse).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AEG1_MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             401 DNHGLVWLSAAMGFGNCVELQASAAFNWNDQRCKTRNRYICQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   341
                                                                                                                                                                                                                                     INDUCTION: By androgens.
SIMILARITY: BELONGS TO A FAMILY THAT GROUPS MAMMALIAN SCP/TPX1;
INSECTS AG3/AG5; FUNGI SC7/SC14 AND PLANTS PR-1.
                                                                                                                                                                                                                                                                                                                            SUBMANDIBULAR GLAND.
DEVELOPMENTAL STAGE: EXPONENTIAL INCREASE
                                                                                                                                                                                                                                                                                                                                                      CONVOLUTED TUBULES CELLS.

TISSUE SPECIFICITY: MAINLY FOUND IN THE CAUDA EPIDIDYMIS WHERE IT IS SYNTHESIZED BY THE PRINCIPAL CELLS AND SECRETED INTO THE LUMEN. BINDS TO THE HEADS OF SPERMATOZOA. ALSO EXPRESSED IN THE
                                                                                                                                                                                                                                                                                                                  AFTER BIRTH.
                                                                                                                                                                                                                                                                                                                                                                                                                                 SUBCELLULAR LOCATION: STORED IN SECRETORY GRANULES OF GRANULAR
                                                                                                                                                                 SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its by non-profit institutions as long as its content is in no way
                                                     A49202; A49202
                                                                  M92849; AAA37185.1;
L05559; AAA37460.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNF-----FAGGEDCVVMVAHENGRWNDVPCNYNLPYVCK 1150
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KVQDILAFYLGRLETTNEVTDSDFETRNFWIGLTYKTAKDSFRWATGEHQAFTSFAFGQP 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PSYGGNLCEKDT----EGCDRGWHKFQGHCYRYFAHRRAWEDAERDCRRRAGHLTSVHSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IGYGGAQCATKVHFPFHTCDL---RIDGDCFMVSSEADTYYRARMKCQRKGGVLAQIKSQ 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STANDARD;
              Allrgn_V5/Tpx1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Craniata; Vertebrata; I
Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        244
                                                                                                                                    (See http://www.isb-sib.ch/announce/
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ALD DEFINE REPRESENTATION OF THE PROPERTY OF T
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Best Local
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PRODOM: PD000542: Allrgn_v3/xr...

SMART: SM00198: SCP; 1.

PROSITE: PS01009: SCP_AG5_PR1_SC7_1;

PROSITE: PS01010: SCP_AG5_PR1_SC7_2;

PROSITE: PS01010: SCP_AG5_PR1_SC7_2;
                                                                                                               Margolis R.K., Margolis R.U.;
"Differential regulation of expression of hyaluronan-binding proteoglycans in developing brain: aggrecan, versican, neuro
                                                                                                                                                                                                                                                                                                                                                                                                                                      (ISOFORM V3), AND SEQUENCE STRAIN-Wistar Kyoto; MEDLINE-99327053; PubMed-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q9ERB4; 008592; 088564; Q9RIK4;
16-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Versican core protein precursor (Large fibroblast proteoglycan)
(Chondroitin sulfate proteingy core protein 2) (PG-M) (Glial hyalmonate-binding protein) (GHAP) (Fragments).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       _RAT
                                                                                                                                                                                                                            STRAIN-Wistar Kyoto;
MEDLINE-98308094; Pu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE OF 349-2738 FROM N.A. (ISOFORM V3), AND SEQUENCE OF
TISSUE=Kidney;
                                                                             Biochem.
                                                                                                    brevican.
                                                                                                                                                                                               Milev P., Maurel P., Chiba A., Mevissen M., Popp
                                                                                                                                                                                                                                                                            SEQUENCE OF 349-2738 FROM N.A. (ISOFORM VO)
                                                                                                                                                                                                                                                                                                                         "Versican/PG-M isoforms in vascular smooth muscle cells.", Arterioscler. Thromb. Vasc. Biol. 19:1630-1639(1999).
                                                                                                                                                                                                                                                                                                                                                                                      Wight
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Rodentia;
                       SEQUENCE OF 2421-2463
                                                                                                                                                                                                                                                                                                                                                                                                         Lemire J.M., Braun
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Rattus norvegicus (Rat).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QGWYNEYKDLTYDVGPKQPDSVVGHYTQVVWNSTFQVACGVAECPKNPLRY-YYVCHYCP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGNWEVNGKTIIPYKKGAWCSLCTASVSGCFKAWDHA-GGLCEVPRNPCRMSCQNHGRLN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LMLVLFFL----AAVLPPSLLQDSSQENRLEKLSTTKMSVQEEIVSKHNQLRRMVSPSG
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                                                                                                                                                                                                                                                                                                                                                                                      T.N.
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                                                                       Biophys. Res.
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145
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                         PubMed=10397680;
n K.R., Maurel P.,
                                                                                                                                                                                                                            PubMed=9642104;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 244
145
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25.7%;
                       FROM N.A.
                                                                       Commun.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  44; Mismatches 110;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 209; Db 1,
No. 6.4e-10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SPERM-COATING GLYCOPROTEIN 1
N-LINKED (GLCNAC. . .) (POTE); D00DD0348F85781F CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1. (ISOFORM
2657-2738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
                                                                       247:207-212(1998).
                       (ISOFORM VO)
                                                                                                                                                                                                                                                                                                                                                                                                         Kaplan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VO),
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                                                                                                                                                                                                                                                                                                                                                                                                      E.D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
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                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                         Schwartz S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (ISOFORM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
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                                                                                                                                                                                                 Yamaguchi
                                                                                                                       neurocan,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VINT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  66;
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EMBL; AF084544; AAD48544.1; -...

EMBL; AF072892; AAC26116.1; -...

EMBL; AY007691; AAG16631.1; -...

HSSP; P01132; 1EPG

InterPro: """
                                                                                                  Interpro; IPRO00152; Asx_hydroxyl.
Interpro; IPR000742; EGF_1;
Interpro; IPR000742; EGF_2.
Interpro; IPR000360; Ig_like.
Interpro; IPR003599; Ig_like.
Interpro; IPR003509; Ig_like.
Interpro; IPR003508; Sushi_SCR_CCP.
Interpro; IPR000338; Link.
Interpro; IPR000436; Sushi_SCR_CCP.
Interpro; IPR000436; Sushi_SCR_CCP.
Interpro; IPR000436; Sushi_SCR_CCP.
INTERPRO; IPR000436; Sushi_SCR_CCP.
INTERPRO; IPR000436; CCP; 1.
SMART; SM000032; CCP; 1.
SMART; SM00018; EGF_CA; 2.
SMART; SM00119; EGF_CA; 2.
SMART; SM00119; EGF_CA; 2.
SMART; SM00445; LINK; 2.
SMART; SM00445; LINK; 2.
PROSITE; PS001010; ASX_HYDROXYL; 1.
PROSITE; PS001010; ASX_HYDROXYL; 1.
PROSITE; PS001187; EGF_2; 1.
PROSITE; PS01187; EGF_CA; 1.
PROSITE; PS01187; EGF_CA; 1.
PROSITE; PS01187; EGF_CA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN-Sprague-Dawley; TISSUE=Lung; Blomberg L.A., Chan W.-Y., Clerch L., Massaro D.; Molecular cloning and characterization of two developme regulated genes in rat lung."; Submitted (SEP-2000) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pyke C., Kristensen P., Ostergaard P.B., Oturai P.S., "Proteoglycan expression in the normal rat kidney."; Nephron 77:461-470(1997).
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                                Glycoprotein; Proteoglycan; Lectin; Extracellular matrix; Signal; Repeat; EGF-like domain; Calcium; Immunoglobulin d Hyaluronic acid; Alternative splicing.

SIGNAL 1 20 POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE OF 2535-2738 FROM N.A.
NON_CONS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (By similarity).

SIMILARITY: CONTAINS 1 IMMUNOGLOBULIN-LIKE V-TYPE DOMAIN.

SIMILARITY: CONTAINS 2 LINK DOMAINS.

SIMILARITY: CONTAINS 2 EGF-LIKE DOMAINS.

SIMILARITY: CONTAINS 1 C-TYPE LECTIN FAMILY DOMAIN.

SIMILARITY: CONTAINS 1 SUSHI (SCR) DOMAIN.

SIMILARITY: CONTAINS 1 SUSHI (SCR) DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SÜBCELLULAR LOCATION: Secreted; extracellular matrix. ALTERNATIVE PRODUCTS: At least 3 isoforms; V0 (shown here), Vint; are produced by alternative splicing. TISSUE SPECIFICITY: In kidney is expressed in the papillary but not in glomeruli.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           the regulation of cell motility, growth and differentiation. hyaluronic acid.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FUNCTION: May play a role in intercellular signaling and connecting cells with the extracellular matrix. May take
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DEVELOPMENTAL STAGE: Disappears after the cartilage development
                   VERSICAN CORE PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           developmentally
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2632 K
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                                                                                                                                     TCVDGLNTFR----
                                                                                                                                                                                   LCKT--NPC-----LNGGTCYPTETSYVCTCAPGYSGDQCELDFDECHSNPCRNGA 2482
                                                                                                                                                                                                         LCEVPRNPCRMSCQNHGRLNISTCH-----CHCPPGYTGRYCQV-----RCSL
                      0 442
                                            FRWTDGSALQYENWRPNQPDS----FFSAG----EDCVVIIWHENGQWNDVPCNYHLTYTC
                                                                   FRWATGEHQAFTSFAFGQPDNHGLVWLSAAMGFGNCVELQASAAFNWNDQRCKTRNRYIC
                                                                                          AAERECRLQGAHLTSILSHEEQ - - -
                                                                                                      RARMKCQRKGGVLAQIKSQKVQDILAFYLGRLETTNEVTDSDFETRNFWIGLTYKTAKDS
                                                                                                                                                            QCVHG--RFREEECSCVCDIGYGGAQCATKVHFPFHTCDL---RIDGDCFMVSSEADTYY
2632
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2738
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                                                                                                                                                                                                                                            27.0%;
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                                                                                                                                                                                                                                                                             MISSING (IN ISOFORM V3).

PSAYQRTYSKKYLKNISSVKDMSINTSKHEHRWSRRWQETR
R -> RKWSFRKNGQPCFNKY (IN ISOFORM VINT).
AEREC -> NSARG (IN REF. 4).
                                                                                                                                                                                                                                                                                                                                                                      N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C-TYPE LECTIN.
SUSHI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAG-ALPHA
                                                                                                                                                                                                                                            Score 200; DB 1;
Pred. No. 4.1e-08;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IG-LIKE V-TYPE DOMAIN
                                                                                                                                                                                                                                                                                                                                      N-LINKED
                                                                                                                                                                                                                                                                                                                                                 N-LINKED
                                                                                                                                                                                                                                                                                                                                                             N-LINKED
                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                          D (GLCNAC. . .)
(IN ISOFORM V3)
                                                                                                                                                                                                                                                                                                                                    (GLCNAC...)
(GLCNAC...)
(GLCNAC...)
(GLCNAC...)
(GLCNAC...)
                                                                                                                                                                                                                                                                                                                                                                                          GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (GLUCOSAMINOGLYCAN ATTACHMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CALCIUM-BINDING
                                                                                                                                                                                                                                 84; Indels
                                                                                                                                                                                                                                                     Length 2738;
                                                                                                                                                                                                                                                                                                                                                                                (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                (POTENTIAL). (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                     (POTENTIAL)
                                                                                                                                                                                                                                  64;
                                                                                                                                                                                                                                  Gaps
                                                                     441
                                                                                                                                                                                                                                   13;
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RA Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,
RA Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
RA Airawa K., Izawa M., Nishii K., Kiyosawa H., Kondo S., Yamanaka I.,
RA Kadota K., Darawa M., Nishii K., Kiyosawa H., Kondo S., Yamanaka I.,
RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA Schrimi L.M., Staubli F., Suzuki R., Tonita M., Wagner L., Washio T.,
RA Schrimi L.M., Staubli F., Suzuki R., Tonita M., Wagner L., Washio T.,
RA Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
RA Blake J., Boffelli D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
RA Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
RA Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
RA Hayashizaki Y.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT
         This
                                                                                                                                                                                                                                                                                                                                                                                     Hayashizaki Y.; "Functional annotation of a full-length mouse cDNA collection."; Nature 409:685-690(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              _MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               without a tissues.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q62059; Q62058; Q9CUU0;
01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
Versican core protein precursor (Large fibrob
(Chondroitin sulfate proteoglycan core protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=21085660; PubMed=11217851; Kawai J., Shinagawa A. Shihata v
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE-95181355; PubMed-7876137;
Zako M., Shinomura T., Ujita M., Ito K., Kimata K.;
"Expression of PG-M(V3), an alternatively spliced form of PG-M without a chondroitin sulfate attachment in region in mouse and human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN=C57BL/6J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE OF 1-1692 FROM N.A. (ISOFORM V1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A. (ISOFORM V3).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    proteoglycan generated by alternative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN-C57BL/6, and Swiss Webster; TISSUE-Brain; MEDLINE-95122551; PubMed-7822336; Ito K., Shinomura T., Zako M., Ujita M., Kimata K.; "Multiple forms of mouse PG-M, a large chondroitin sulfate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. (ISOFORMS V0; V1 AND V2).
STRAIN-C57BL/6, and Swiss Webster; TISSUE-Brain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CSPG2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PGCV_MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=10090;
                                      V2 and V3; are produced by alternative splicing.
TISSUE SPECIFICITY: V2 is found only in brain.
DEVELOPMENTAL STAGE: Disappears after the cartilage development.
SIMILARITY: CONTAINS 1 IMMUNOSCLOBULIN-LIKE V-TYPE DOMAIN.
SIMILARITY: CONTAINS 2 LINK DOMAINS.
SIMILARITY: CONTAINS 2 EGF-LIKE DOMAINS.
SIMILARITY: CONTAINS 2 EGF-LIKE DOMAINS.
SIMILARITY: CONTAINS 1 SUSHI (SCR) DOMAIN.
SIMILARITY: CONTAINS 1 SUSHI (SCR) DOMAIN.
SIMILARITY: BELONGS TO THE AGGRECAN/VERSICAN PROTEOGLYCAN FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Biol. Chem. 270:3914-3918(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Biol.
                                                                                                                                                                                                                                                 hyaluronic acid.
SUBCELLULAR LOCATION: Secreted; extracellular matrix.
ALTERNATIVE PRODUCTS: At least 4 isoforms; VO (shown here), V1,
                                                                                                                                                                                                                                                                                                                     FUNCTION: May play a role in intercellular signaling and in connecting cells with the extracellular matrix. May take part in the regulation of cell motility, growth and differentiation. Binds
           SWISS-PROT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Chem. 270:958-965(1995).
    entry is
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  copyright.
    It is
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           fibroblast proteoglycan)
protein 2) (PG-M).
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produced through a collaboration
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SMART; SM00034; CLECT; 1.
SMART; SM00179; EGF_CA; 1.
SMART; SM00001; EGF_like; 1.
SMART; SM00409; IG; 1.
SMART; SM00445; LINK; 2.
                                                                                                                                                                      DOMAIN
DISULFID
DISULFID
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                             DISULFID DISULFID
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DOMAIN
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PROSITE;
PROSITE;
                                                             DISULFID
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                                                                                            DISULFID
                                                                                                         DISULFID
                                                                                                                           DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Glycoprotein; Proteoglycan; Lectin; Extracellular matrix;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRINTS; PR00010; EGFBLOOD. ProDom; PD000918; Link; 2.
                                                                                                                                                                                                                                                                                                                                                                                                          SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                       Hyaluronic acid; Alternative splicing
                                                                                                                                                                                                                                                                                                                                                                                                                                         Signal; Repeat;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROSITE;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              InterPro;
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PF00193;
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E; PS00010; ASX_HYDROXYL; 1.

E; PS00022; EGF_1; 2.

E; PS01186; EGF_2; 1.

E; PS01187; EGF_CA; 1.

E; PS0141; LINK; 2.

E; PS0141; C_TYPE_LECTIN_1; 1.

E; PS0041; C_TYPE_LECTIN_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PF00059; lectin_c; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PF00047;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        D16263; BAA03796.1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IPRO01438;
IPRO03599;
IPRO03006;
IPRO01304;
IPRO00538;
IPRO00436;
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: IPR000742;
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7immermann D.R., IOZZO
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versican gene and functional analysis of its J. Biol. Chem. 269:32999-33008(1994). [2]
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"A novel glycosaminoglycan attachment domain identified alternative splice variants of human versican.";
J. Biol. Chem. 269:32992-32998(1994).
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                                                                                                                                MEDLINE=96213482; PubMed=8627343;
Paulus W., Baur I., Dours-Zimmermann M.T., Zimmermann D.R.;
"Differential expression of versican isoforms in brain tumors.";
J. Neuropathol. Exp. Neurol. 55:528-533(1996).
-i FUNCTION: May play a role in intercellular signaling and in
                                                                                                                                                                                                                                                                               MEDLINE=89174663; PubMed=2466833; Perides G., Lane W.S., Andrews D., Dahl Isolation and partial characterization
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            without a chondroitin sulfate attachment tissues.":
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=95181355; PubMed=7876137;
Zako M., Shinomura T., Ujita M., Ito K., Kimata K.;
"Expression of PG-M(V3), an alternatively spliced form of PG-M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Krusius T., Gehlsen K.R., Ruoslahti E.;
"A. fibroblast chondroitin sulfate proteoglycan core protein contains
lectin-like and growth factor-like sequences.";
J. Biol. Chem. 262:13120-13125(1987).
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J. Biol. Chem. 264:5981-5987(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                     Wight
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE OF 3333-3396 FROM N.A. (ISOFORM VINT)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TISSUE=Brain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A. (ISOFORM V3).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Genomics 14:845-851(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Mapping of the versican proteoglycan human chromosome 5 (5q12-5q14).";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          McPherson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=93122792;
                                                                                                                                                                                                                      TISSUE SPECIFICITY OF ISOFORMS
                                                                                                                                                                                                                                                                                                                                                       PARTIAL SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                    Arterioscler.
                                                                                                                                                                                                                                                                                                                                                                                                    "Versican/PG-M isoforms in vascular smooth muscle cells.";
                                                                                                                                                                                                                                                                                                                                                                                                                                  Lemire J.M., Braun K.R., Maurel P., Kaplan E.D., Schwartz S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE OF 251-347 FROM N.A. SEQUENCE OF 251-347 FROM N.A. MEDLINE=93122792; PubMed=1478664;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cissues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          [ozzo R.V.,
hyaluronic acid.
SUBCELLULAR LOCATION: Secreted; extracellular matrix.
SUBCELLULAR LOCATION: Secreted; extracellular matrix.
ALTERNATUE PRODUCTS: At least 5 isoforms; V0 (shown here), V1,
V2, V3 and Vint; are produced by alternative splicing.
TISSUE SPECIFICITY: Cerebral white matter. V0 and V1 is expressed in normal brain, gliomas, medulloblastomas, schwannomas,
                                                                                                                 FUNCTION: May play a role in intercellular signaling and connecting cells with the extracellular matrix. May take
                                                                                              the regulation of cell motility, growth and differentiation.
                                                                                                                                                                                                                                                                                                                                                                                                                    T.N.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Chem.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          J.D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Naso M.F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cumor;
                                                                                                                                                                                                                                                                                                                                                                                        Thromb. Vasc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       270:3914-3918(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PubMed=7806529;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (ISOFORM V2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cannizzaro L.A., Wasmuth J.J.,
                                                                                                                                                                                                                                                                                                                                                                                      Biol. 19:1630-1639(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gene (CSPG2) to
                                                                                                                                                                                                                                                                                     D., Bignami A.; of a glial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        in region
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          mouse
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ProDom; PD000918; Link; 2.
SMART; SM00032; CCP; 1.
SMART; SM00034; CLECT; 1.
SMART; SM00004; EGF_CA; 1.
SMART; SM00001; EGF_Like; 1.
SMART; SM00409; IG; 1.
SMART; SM00405; LINK; 2.
                                                                                                             PROSITE; PS001012; EGF_1; 2.

PROSITE; PS01186; EGF_1; 2.

PROSITE; PS01186; EGF_2; 1.

PROSITE; PS01187; EGF_CA; 1.

PROSITE; PS01241; LINK; 2.

PROSITE; PS00615; C_TYPE_LECTIN_1; 1.

PROSITE; PS00615; C_TYPE_LECTIN_2; 1.

Glycoprotein; Proteoglycan; Lectin; Extracellular matrix; Glycoprotein; Proteoglycan; Lectin; Calcium; Immunoglobulin d signal; Repeat; EGF-11ke domain; Calcium; Immunoglobulin d
                                        DOMAIN
DOMAIN
DOMAIN
                                                                                            SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                 InterPro;
InterPro;
InterPro;
                          DOMAIN
                                                                   DOMAIN
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EMBL;
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                                                                                                                                                                                                                                                                                                                                   PRINTS; PR00010; EGFBLOOD
                                                                                                                                                                                                                                                                                                                                                     Pfam;
                                                                                                                                                                                                                                                                                                                                                                                            Pfam;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                InterPro; IPR000152; Asx_hydroxyl.
InterPro; IPR000561; EGF-like.
InterPro; IPR000742; EGF_2.
InterPro; IPR001881; EGF_Ca.
InterPro; IPR001438; EGF_II.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Genew; HGNC:2464; CSPG2
MIM; 118661; -.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        InterPro;
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; A29348; A29348.
; A30358; A30358.
P; P01132; 1EGF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      medulloblastomas.

DEVELOPMENTAL STAGE: Disappears after the cartilage development.

SIMILARITY: CONTAINS 1 IMMUNOGLOBULIN-LIKE V-TYPE DOMAIN.

SIMILARITY: CONTAINS 2 LINK DOMAINS.

SIMILARITY: CONTAINS 2 EGF-LIKE DOMAINS.

SIMILARITY: CONTAINS 1 C-TYPE LECTIN FAMILY DOMAIN.

SIMILARITY: CONTAINS 1 SUSHI (SCR) DOMAIN.

SIMILARITY: BELONGS TO THE AGGRECAN/VERSICAN PROTEOGLYCAN FAMILY.
                                                                                                                                                                                                                                                                                                                                              1; PF00008; EGF; 2.
1; PF00047; 19; 1.
1; PF00059; lectin_c; 1.
1; PF00193; X1ink; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       neurofibromas, and menningiomas; v2 is restricted to and gliomas; v3 is found in all these tissues except
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             X15998;
S52488;
U26555;
D32039;
J02814;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               D32039; BAA06801.1; -. J02814; AAA36437.1; -. AF084545; AAD48545.1; -.
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                                                                                                                                                                                                                                                                                                                                                                                                                          IPRO01304; Lecti
IPRO00538; Link.
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                                                                                                        acid; Alternative
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Ig_MHC.
Lectin_C.
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EGF_Ca.
EGF_II.
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                                                   LINK
                                                                                                        splicing
                      GAG-ALPHA (GLUCOSAMINOGLYCAN ATTACHMENT
                                    LINK 2
                                                              VERSICAN CORE I
           DOMAIN)
                                                                                          POTENTIAL.
                                                             PROTEIN.
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Best Local
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                                                                                        _MOUSE TPX1_MOUSE STANDARD; PRT; 243 AA. P16563; P16563; O1-AUG-1990 (Rel. 15, Created) O1-BPS1990 (Rel. 15, Last sequence update) O1-EEB-1996 (Rel. 33, Last annotation update) Textis-specific protein TPX-1 precursor.
                                              Eukaryota; Metazoa;
Mammalia; Eutheria;
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CARBOHYD
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SEQUENCE FROM N.A
                  NCBI_TaxID=10090;
[1]
                                                                              Mus musculus (Mouse)
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                                                                                                                                                                                                                                                                                                                                                                                                                                    272
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                                                                                                                                                                                                                                                                   STLQYENWRPNQPDS----FFSAG---EDCVVIIWHENGQWNDVPCNYHLTYTCK 3290
                                                                                                                                                                                                                                                                                                                                                             QRKGGVLAQIKSQKVQDILAFYLGRLETTNEVTDSDFETRNFWIGLTYKTAKDSFRWATG
                                                                                                                                                                                                                                                                                                  EHQAFTSFAFGQPDNHGLVWLSAAMGFGNCVELQASAAFNWNDQRCKTRNRYICQ 442
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                                                                                                                                                                                                                                                                                                                                    RLQGAHLTSILSHEEQ----MFVNRV-----GHDYQ---
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                                       Chordata; Craniata; Vertebrata; Euteleostomi; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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Pred. No. 1.1e-07;
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EGF-LIKE 2, CA
C-TYPE LECTIN.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 3396;
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Search completed: December 29, Job time: 44 secs
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MGD; MGI:98815; Tpx1.

InterPro; IPR001283; Allrgn_V5/Tpx1.

Pfam; PF00188; SCP; 1.

PRINTS; PR00887; V5TPXLIKE.

PRODOM; PD000542; Allrgn_V5/Tpx1; 1.

SMART; SM00198; SCP; 1.

PROSITE; PS01009; SCP_AG5_PR1_SC7_1; 1.

PROSITE; PS01010; SCP_AG5_PR1_SC7_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CHAIN
SEQUENCE
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MEDLINE-90129048; PubMed-2613236;

Kasahara M., Gutknecht J., Brew K., Spurr N., Goodfellow P.N.;

"Cloning and mapping of a testis-specific gene with sequence similarity to a sperm-coating glycoprotein gene.";

Genomics 5:527-534(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Testis; Signal.
SIGNAL 1
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-!- TISSUE SPECIFICITY: TESTIS.
-!- SIMILARITY: BELONGS TO A FAMILY THAT GROUPS MAMMALIAN SCP/TPX1;
INSECTS AG3/AG5; FUNGI SC7/SC14 AND PLANTS PR-1.
                                                                                                                                                                                                                                                                                                    196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   154 VWATSSQLGCGRHLCSAGQTAIEAFVCAYSPGGNWEVNGKTIIPYKKGAWCSLCTASVSG 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              101 MSTDPTLWST------VIQSWYNENEDFVYGVG-AKPNSAVGHYTQL 140
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 141 VWYSSFKIGCGIAYCPNQDNLKYFYVCHYCPMGNNVMKKST--PYQQGTPCASCPNN---
                                                                                                                                                228 LKTKCQATC-----LCEDKIH 243
                                                                                                                                                                                                                      274 REEECSCVCDIGYGGAQCATKVH 296
                                                                                                                                                                                                                                                                                                                                                                       214 CFKAWDHAGGLCEVPRNPCRMSCQNHGRLNISTCHCHCPPGYTGRYCQVRCSLQCVHGRF 273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11 IVNKHNELRRSVNPTGSDILKMEWSIQATTNAQKWANKCILEHSSKDDRKINIRCGENLY 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        51 LLSLHNRLRSWVQPPAADMRRLDWSDSLAQLAQARAALCGIPTPS-----LASG---- 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -----LWRTLQVGWNMQLLPAGLASFVEVVSLWFAEGQRYSHAAGECARNATCTHYTQL 153
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23 243 TESTIS-SPECIFIC PROTEIN TPX-1.
243 AA; 27605 MW; 6E707F569ACAA244 CRC64;
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                                   2002, 02:23:56
                                                                                                                                                                                                                                                                                                ---SLKTSAGCKH-EL 227
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Post-processing: Minimum Match 0%
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 No.
 Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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1 MLHPETSPGRGHLLA
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Match
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1: pir1:*
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A47171
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45	44	43	42	41	40	39	3 8	37	36	3 5	34	33	32	31	30
173	173	173.5	173.5	174	174	175	175	175	176	176.5	177	177.5	178	178.5	179
6.8	6.8	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.0	7.0	7.0	7.0	7.0	7.1	7.1
883	209	213	212	204	168	208	205	168	185	161	178	2825	202	1456	184
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S49126	T19848	T22439	T27834	A44583	C24620	T19852	T48294	T07146	T10677	S65777	S68681	T14271	G44583	A36563	S10205
brevican precurso:	hypothetical prote	hypothetical prote	hypothetical prote	venom allergen ant	pathogenesis-relat	hypothetical prote	pathogenesis relat	pathogenesis-relat	. pathogenesis-rela	pathogenesis-rela	cysteine-rich sec	Doc4 protein, stre	venom allergen an	mannose receptor	pathogenesis-rela

ALIGNMENTS

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QY 184 PGGNWEVNGKTIIPYKKGAWCSLCTASVSGCFKAWDHAGGLCEVPRNPCRMSCQNHGRLN 243	Qy 124 VSLWFAEGORYSHAAGECARNATCTHYTQLVWATSSOLGCGRHLCSAGQTAIEAFVCAYS 183 :	OY 68 DMRRLDWSDSLAQLAQARAALCGIPTPSLASGLWRTLQVGWNWQLLPAGLASFVEV 123	OY 13 LIAVLIALLGTTWAEVWPPQLQEQAPMAGALNRKESFLLLSLHNRLRSWVQPPAA 67	Query Match 9.9%; Score 250; DB 2; Length 245; Best Local Similarity 27.1%; Pred. No. 9.5e-12; Matches 76; Conservative 44; Mismatches 108; Indels 52; Gaps 12;	<pre>c; genetics: A; Gene: SGP28 A; Gene: SGP28 C; Superfamily: cysteine-rich secretory protein 1 C; Superfamily: cysteine-rich secretory protein 1 F; 1-19/Domain: signal sequence #status predicted <sig> F; 20-245/Product: neutrophil granules matrix glycoprotein SGP28 #status predicted <ma< pre=""></ma<></sig></pre>	A;Status: preliminary A;Molecule type: mRNA A;Residues: 1-105,'S',107-245 <kra> A;Cross-references: EMBL:X95240; NID:g1262818; PIDN:CAA64527.1; PID:g1262819</kra>	R;Kraetzschmar, J.; Haendler, B.; Eberspaecher, U.; Roosterman, D.; Donner, P.; Schle Eur. J. Biochem. 236, 827-836, 1996 A;Title: The human cysteine-rich secretory protein (CRISP) family. Primary structure A;Reference number: S68681; MUID:96270732; PMID:8665901 A;Accession: S68683	A; Molecule type: mRNA A; Residues: 1-245 <kje> A; Residues: 1-245 <kje> A; Coss references: EMBL: X94323; NID: g1213612; PIDN: CAA63984.1; PID: g1213613 A; Accession: S74313 A; Molecule type: protein A; Residues: 33-83; 96-143; 165-217; 221-226 <kjl></kjl></kje></kje>	neutrophil granules matrix glycoprotein SGP28 precursor - human C;Species: Homo sapiens (man) C;Date: 15-Feb-1997 #sequence_revision 13-Mar-1997 #text_change 17-Nov-2000 C;Accession: S68691; S74313; S68683 R;Kyleddsen, L.; Cowland, J.B.; Johnsen, A.H.; Borregaard, N. FEBS Lett. 380, 246-250, 1996 A;Title: SGP28, a novel matrix glycoprotein in specific granules of human neutrophils A;Reference number: S68691; MUID:96186934; PMID:8601434

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R;Murphy, E.V.; Zhang, Y.; Zhu, W.; Biggs, J. Gene 159, 131-135, 1995
A;Title: The human glioma pathogenesis-related A;Reference number: JC4131; MUID:95331646; PMIC A;Accession: JC4131
       C;Superfamily: yellowjacket venom allergen antigen
C;Keywords: brain
                                                                                                    A; Experimental source: brain tumor C; Genetics:
                                                                                                                                                                                                                                                                                                                             glioma pathogenesis-related protein - human
C;Species: Homo sapiens (man)
C;Date: 02-Aug-1995 #sequence_revision 19-Oct-1995 #text_change 04-Mar-2000
C;Accession: JC4131
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A; Cross-references: EMBL:X84727; NID:g758629; PIDN:CAA59216.1; PID:g758630 C; Superfamily: aggrecan; C-type lectin homology; complement factor H repeat F;176-253/Domain: link protein repeat homology <LNKZ> F;274-355/Domain: link protein repeat homology <LNKZ> F;964-995/Domain: EGF homology <EGF> F;1040-1160/Domain: C-type lectin homology <LCH>
                                                     A;Cross-references: GDB:683195
                                                                              A; Gene: GDB: GLIPR
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A; Residues: 1-21
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A;Description: Amino acid sequence of mouse neurocan and brevican and A;Reference number: S52781
A;Accession: S52781
                                                                                                                                           A;Cross-references: GB:U16307; NID:g1100927; PIDN:AAA82731.1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C;Species: Mus musculus (house mouse)
C;Date: 19-May-1995 #sequence_revision 21-Jul-1995
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;Rauch, U.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     209
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ----CENNPCLHGGTCHTNGTVYGCSCDQGYAGENCEIDIDDCLCS-PCENGGTCIDEVN 1018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NWREKQPDNF-----FAGGEDCVVMVAHESGRWNDVPCNYNLPYVCK 1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LAQIKSQKVQDILAFYLGRLETTNEVTDSDFETRNFWIGLTYKTAKDSFRWATGEHQAFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GFICLCLPSYGGSLCEKDT----EGCDRGWHKFQGHCYRYFAHRRAWEDAERDCRRRAGH 1074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CRMSCQNHGRLNISTCH-----CHCPPGYTGRYCQV----RCSLQCVHGRFREEECS 279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ASVSSGEPTGLWDI-PSTLIPVSLGLDESVLNVVAESPSVEG---FWEEVASGQEDPTDP 963
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ---CVCDIGYGGAQCATKVHFPFHTCDL---RIDGDCFMVSSEADTYYRARMKCQRKGGV 333
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                                                                                                                                                                   1-219 <MUR>
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PMID:7607567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 #text_change 04-Feb-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 1268;
                                                                                                                                                                                                                                                                is
                                                                                                                                                                                                                                                             structurally related
                                                                                                                                           PID:g847722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            58;
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                                         A; Reference number: S59413
A; Accession: T16415
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A; Molecule
                   A; Status: preliminary; translated from GB/EMBL/DDBJ
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RESULT 5
T16415
hypothetical protein F48E8.1 - Caenorhabditis elegans C;Species: Caenorhabditis elegans C;Date: 20-Sep-1999 #sequence_revision 20-Sep-1999 #text_change C;Accession: T16415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Molecule type: protein
A; Residues: 97-100;114-120;134-144 <RTC2>
A; Experimental source: brain tumor cell
C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;Species: Homo sapiens (man)
C;Date: 01-May-1997 #sequence_revision 01-May-1997 #text_change 19-May-2000
C;Accession: JC5308; PC4311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C;Superfamily: yellowjacket venom allergen antigen 5
F;1-21/Domain: signal sequence #status predicted <SIG>F;22-266/Product: testis-specific, vespid, and pathogenesis-related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Title: RTVP-1, a novel human gene with sequence similarity A;Reference number: JC5308; MUID:97128816; PMID:8973356 A;Accession: JC5308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            F;233-255/Domain: transmembrane #status predicted <TMM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Molecule type: mRNA
A; Residues: 1-266 < RIC1>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Gene: rtvp-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Accession: PC4311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Cross-references: EMBL: X91911; NID: g1030052;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gene 180,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              restis-specific, vespid, and pathogenesis-related protein 1 precursor - human
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Best Local
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                                                                                                                                                                                                                                                                                                                               154 VWATSSQLGCGRHLCS--AGQTAIE---AFVCAYSPGGNWEVNGKTIIPYKKGAWCSLC 207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     154 VWATSSQLGCGRHLCS--AGQTAIE---AFVCAYSPGGNWEVNGKTIIPYKKGAWCSLC
                                                                                                                                                                                                                                                                                                                                                                                          91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               47 ESFL--LLSLHNRLRSWVQPPAADMRRLDWSDSLAQLAQARAALCGIP--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               47 ESFL--LLSLHNRLRSWVQPPAADMRRLDWSDSLAQLAQARAALCGIP-----T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  T.; Chen, P.;
                                                                                                                                                                                                                                                                                 VWADSYKVGCAVQFCPKVSGFDALSNGAHFICNYGPGGNYPT----WPYKRGATCSAC
                                                                                                                                                                                                                                                                                                                                                                                PNFTS-----LGENIWTGSVPIFSVSSAITNWYDEIQDYDFKTRICKK-~VCGHYTQV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EDFIKDCVRIHNKFRSEVKPTASDMLYMTWDPALAQIAKAWASNCQFSHNTRLKPPHKLH 90
                                                                                                                                                                                                                                                                                                                                                                                                                                PSLASGLWRTLQVGWNMQLLPAGLASFVEVVSLWFAEGQRYSHAAGECARNATCTHYTQL 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           125-130,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VWADSYKVGCAVQFCPKVSGFDALSNGAHFICNYGPGGNYPT-----WPYKRGATCSAC 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PSLASGLWRTLQVGWNMQLLPAGLASFVEVVSLWFAEGQRYSHAAGECARNATCTHYTQL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EDFIKDCVRIHNKFRSEVKPTASDMLYMTWDPALAQIAKAWASNCQFSHNTRLKPPHKLH 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Furman, F.; Huynh, N.; Israel, M.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9.1%; Score 231; DB 2; 32.4%; Pred. No. 2.8e-10;
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Pred. No. 2e-10;
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type: DNA : 1-312 <K

cosmid F48E8

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A;Cross-references: GB:M25532; NID:g339882; PIDN:AAA61220.1; PID:g339883 R;Kraetzschmar, J.; Haendler, B.; Eberspaecher, U.; Roosterman, D.; Donne Eur. J. Biochem. 236, 827-836, 1996 A;Title: The human cysteine-rich secretory protein (CRISP) family. Primar A;Reference number: S68681; MUID:96270732; PMID:8665901 A;Accession: S68682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C;Species: Homo sapiens (man)
C;Date: 09-Mar-1990 #sequence_revision 09-Mar-1990 #text_change 20-Jun-2000
C;Accession: B33329; 568682
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                                                                                                                                                                                                                                                                                                              A;Cross-references: GDB:120760; OMIM:187430
A;Map position: 6p21-6qter
C;Superfamily: cysteine-rich secretory protein 1
C;Superfamily: cysteine-rich secretory protein 1
F;1-20/Domain: signal sequence #status predicted <SIG>
                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-243 <KRA>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Title: Cloning and mapping of a testis-specific gene with sequence similarity A;Reference number: A33329; MUID:90129048; PMID:2613236 A;Accession: B33329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        R; Kasahara, M.; Gutknecht, J.; Brew, K.; Spurr, N.; Goodfellow, Genomics 5, 527-534, 1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cysteine-rich secretory protein 2 type I precursor - N;Alternate names: testis-specific protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Introns: 28/1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Cross-references: EMBL:X95239; NID:g1262816;
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                                                                                                                                                                                                                                                                                        21-243/Product: cysteine-rich secretory protein 2 type I #status predicted <MAT>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    194
  116
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
                                             49
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ns: 28/1; 94/3; 153/3; 174/3; 226/3
                                                                                                                                                                 13 LLAVLL------ALLGTTWAEVWPPQLQEQAPMAGALNRKESFLLLSLHNRLR 59
                                                                                                                                                                                                                                Local
                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GECARNATCTHYTQLVWATSSQLGCGRHLCSA-----GQTAIEAFVCAYSPGGNWEVNGK 193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TIIPYKKG-----AW------CSLCTASVSGCFKAWDHAGGLCEVPRN 230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KHC----CGHYVQVVWAKTNLVGCGFSRCRDVQGVWGRGHRNVFVCHYNPQGN-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QRHADTCDFRHSR-----GRINVGENIWAAP--YSNYSDAISIWFNEVHNPRCGCNHAY 165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QARAALCGIPTPSLASGLWRTLQVGWNMQLLPAGLASFVEVVSLWFAEGQR----YSHAA 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FPSHFQSD---SGLLSRSEHPNEYLKKWITHEHNRYRRMV--PASDMNMLYWSDELAASA 113
GLASFYEVVSLWFAEGQRYSHAAGECARNATCTHYTQLVWATSSQLGCGRHLCSAGQTAI 175
                                           KAVSPPASNMLKMEWSREVTTNAQRWANKCTLQHSDPEDRKTS----TRCGENL-YMSS
                                                                                  SWVQPPAADMRRLDWSDSLAQLAQARAALCGI----PTPSLASGLWRTLQVGWNMQLLPA 115
                                                                                                                        LVTVLLPSLPAEGKDPAFTALLTT-----QLQVQRE---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            69;
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28.1%;
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Pred. No. 1.1e-09;
                                                                                                                                                                                                                              Score 221; DB 2;
Pred. No. 1.5e-09;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                             Mismatches
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                                                                                                                                                                                                                                               Length 243
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A; Residues: 1-249 < KRA>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C; Accession:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       В
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                                                                                                                                                                                                                                                                                                                                                                                                    240 ATC 242
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGCEHELLKEKCKATC
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A:Molecule type: mRNA
A;Residues: 1-1257 <RAU>
A;Residues: 1-1257 <RAU>
A;Cross-references: EMBL:M97161; NID:g205649; PIDN:AAC37679.1; PID:g205650
A;Cross-references: EMBL:M97161; NID:g205649; complement factor H repeat homology;
C;Superfamily: aggrecan; C-type lectin homology; complement factor H repeat homology;
C;Keywords: chondroitin sulfate proteoglycan; glycoprotein
F;1-22/Domain: signal sequence #status predicted <SIG>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cysteine-rich secretory protein 1 precursor - human
C;Species: Homo sapiens (man)
C;Date: 15-Feb-1997 #sequence_revision 13-Mar-1997 #text_change 20-Jun-2000
                                                                                                                                                                                                                                  J. Biol. Chem. 267, 19536-19547, 1992
A;TitLe: Cloning and primary structure of neurocan, a developmentally regulated,
A;Reference number: S28764; MUID:92406907; PMID:1326557
A;Accession: S28764
                                                                                                                                                                                                                                                                                                                                                                                                                  neurocan precursor - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 22-Nov-1993 #sequence_revision 01-Sep-1995 #text_change 04-Feb-2000
C;Accession: S28764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          F;22-249/Product: cysteine-rich secretory protein 1 #status predicted
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              R;Kraetzschmar, J.; Haendler, B.; Eberspaecher, U.; Roosterman, D.; Donner, P.; Schle
Eur. J. Blochem. 236, 827-836, 1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Title: The human cysteine-rich secretory A; Reference number: S68681; MUID:96270732;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           91 IPTPSLASGLWRTLQ---VGWNMQLLPAGLASFVEVVSLWFAEGQRYSHAAGECAR---N 144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            31 PQLQEQAPMAGALNRKESFLLLSLHNRLRSWVQPPAADMRRLDWSDSLAQLAQARAALCG
                                                                                                                                                                                                                                                                                                                                        U.; Karthikeyan, L.; Maurel, P.; Margolis, Chem. 267, 19536-19547, 1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CSLCTASVSGCFKAWDHAGGLCE--VPRNPCRMSCQNHGRLNISTCHCHCPPGYTGRYCQ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATCTHYTQLVWATSSQLGCGRHLCSAGQTAIEAFVCAYSPGGN-WEVNGKTIIPYKKGAW 203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EAFVCAYSPGGNWEVNGKTIIPYKKGAWCS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     M - - - TESNPLERRLPNTFCGENMHMTSYPV - SWSSVIGVWYSESTSFKH - - GEWTTTDDD
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pMID:8665901
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                                                                                                                                                                                                                                                                                                                                                                                       R.U.; Margolis, R.K.
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C; Superf
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F;176-253/Domain: link protein repeat homology <LNK1>
F;274-355/Domain: link protein repeat homology <LNK2>
F;264-366/Region: cell attachment (R-G-D) motif
F;953-984/Domain: EGF homology <EGF>
F;1029-1149/Domain: C-type lectin homology <LCH>
F;11029-1149/Domain: complement factor H repeat homology <FHD>
F;11156-1212/Domain: complement factor H repeat homology <FHD>
F;111,339,737,967,1164/Binding site: carbohydrate (Asn) (covalent) *status predicted
F;372,410/Binding site: chondroitin sulfate (Ser) (covalent) *status experimental
F;944/Binding site: chondroitin sulfate (Ser) (covalent) *status experimental
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Endocrinology 133, 192-198, 1993
A;Title: Transcripts for cysteine-rich secretory protein-1 (CRISP-1; DE/AEG) and the nov A;Reference number: A49202; MUID:93307144; PMID:8319566
A;Accession: A49202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Cross-references: GB:L05559; NID:g309190; PIDN:AAA37460.1; A;Experimental source: NMRI, epididymis, salivary gland A;Note: sequence extracted from NCBI backbone (NCBIN:134675,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Molecule type: nucleic acid
A; Residues: 1-244 <HAE>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C;Species: Mus musculus (house mouse)
C;Date: 19-Dec-1993 #sequence_revision 18-Nov-1994 #text_change 29-Sep-1999
C;Accession: A49202
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         185
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               177 AFVCAYSPGGNWEVNGKTIIPYKKGAWCS--LCTASVSGCFKAWDHAGGLCEVPRNPCRM 234
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GGNWEVNGKTIIPYKKGAWCSLCTASVSGCFKAWDHA-GGLCEVPRNPCRMSCQNHGRLN 243
                                                          QGWYNEYKDLTYDVGPKQPDSVVGHYTQVVWNSTFQVACGVAECPKNPLRY-YYVCHYCP 172
                                                                                                             SLWFAEGQRYSHAAGECARNATCTHYTQLVWATSSQLGCGRHLCSAGQTAIEAFVCAYSP 184
                                                                                                                                                                          SDLLKMEWNYDAQVNAQQWADKC---TFSHSPIELRTTNLRCGENL-FMSSYLASWSSAI 113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DNF-----FAGGEDCVVMVAHENGRWNDVPCNYNLPYVCK 1150
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                                                                                                                                                                                                                                 ADMRRLDWSDSLAQLAQARAALCGIPTPSLASGLWRT--LQVGWNMQLLPAGLASFVEVV 124
                                                                                                                                                                                                                                                                                           LMLVLFFL----AAVLPPSLLQDSSQENRLEKLSTTKMSVQEEIVSKHNQLRRMVSPSG 57
                                                                                                                                                                                                                                                                                                                                                  LLAVLLALLGTTWAEVWPPQLQEQAPMAGALNRKESFL-----LLSLHNRLRSWVQPPA 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KVQDILAFYLGRLETTNEVTDSDFETRNFWIGLTYKTAKDSFRWATGEHQAFTSFAFGQP 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IGYGGAQCATKVHFPFHTCDL---RIDGDCFMVSSEADTYYRARMKCQRKGGVLAQIKSQ 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NPCLHGGTCRTNGTMYGCSCDQGYAGENCEIDIDDCLCS-PCENGGTCIDEVNGFICLCL 1014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SCQNHG---RLNISTCHCHCPPGYTGRYCQV-----RCSLQCVHGRFREEECS---CVCD 283
                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                        8.3%; Score 209; DB 2;
25.7%; Pred. No. 1.2e-08;
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                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                  110;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 244;
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A;Molecule type: mRNA
A;Molecule type: mRNA
A;Residues: 1-2397 <RES>
A;Residues: 1-2397 <RES>
A;Residues: 1-2397 <RES>
A;Cross-references: GB:DI6263; NID:g862460; PIDN:BAA03796.1; PID:g862461
C;Superfamily: versican; C-type lectin homology; complement factor H repeat homology;
F;1-20/Domain: signal sequence #status predicted <SIG>
F;21-1654/Domain: versican #status predicted <MAT>
                                                                                                                                                                                                                  R;Ito, K.; Shinomura, T.; Zako, M.; Ujita, M.; Kimata, K. J. Biol. Chem. 270, 958-965, 1995
A;Title: Multiple forms of mouse PG-M, a large chondroitin sulfate A;Reference number: A55535; MUID:95122551; PMID:7822336
A;Accession: A55535
                                                                                                                                                                                                                                                                                                                                                                 C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change
C;Accession: A55535
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                                                                                                                                                                                        A;Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                    N; Contains:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N;Alternate names: chondroitin sulfate proteoglycan
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C; Superfamily: cysteine-rich secretory protein 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Cross-references: DDBJ;AB009662; NID:g3374579; PIDN:BAA32029.1; PID:g3374580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Molecule type: mRNA
A; Residues: 1-243 <MAE>
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C;Date: 21-Aug-1998 #sequence_revision 21-Aug-1998 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          versican precursor - mouse
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                                                                                                                                                                                                                                                                                                                                                                                                                      Contains: glial hyaluronate-binding protein Species: Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Comment: This protein functions as a cell adhesion protein for the association
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             215 E-----SLKSSAGCKHELLKAKCEATCLCE-----DKIH 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     248 HCHCPPGYTGRYCQVRCSLQCVHGRFREE-ECSCVCDIGYGGAQCATKVH 296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           175 NYMKKST--PYHQGTPCASCP---NNC----DNGLC---TNSCDFEDL-----LSNC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                188 WEVNGKTIIPYKKGAWCSLCTASVSGCFKAWDHAGGLCEVPRNPCRMSCQNHGRLNISTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        116 YEENENFVFGVG-AKPNSAVGHYTQLVWYSSFKVGCGVAYCPNQDTLKYFYVCHYCPMGN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              244 ISTCHCHCPPGYTGRY--CQ-VRCSLQCVHGRFREEECSCVCDIGYGGAQCATKVH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10 VFAVLLPLPPTEGKDPDFATLTTNQIQVQRE------IIAKHNELRRQVSPPGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          13 LLAVLLALLGT-----TWAEVWPPQLQEQAPMAGALNRKESFLLLSLHNRLRSWVQPPAA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NILKMEWNVQAAANAQKWANNC-ILEHSSTEDRKINIKCGENL-YMSTDPTSWRTVIQSW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DMRRLDWSDSLAQLAQARAALCGIPTPSLASGLWRTLQVGWNMQLLPAGLASFVEVVSLW 127
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                h 8.2%; Score 208; DB 2;
Similarity 25.5%; Pred. No. 1.4e-08;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels 62;
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R; Perides, G.; Lane, W.S.; Andrews, D.; Dahl, D.; Bignami, A.

J. Biol. Chem. 264, 5981-5987, 1989

A; Title: Isolation and partial characterization of a glial hyaluronate-binding protein. A; Recession: A30358; MUID:89174663; PMID:2466833

A; Accession: A30358

A; Molecule type: protein

A; Residues: 24-50;80-87, D',89-119;128-155;167-218;229-259, TR';261-268;277-283, 'G',285-R; Krusius, T.; Gehlsen, K.R.; Ruoslahti, E.

J. Biol. Chem. 262, 13120-13125, 1987

A; Title: A fibroblast chondroitin sulfate proteoglycan core protein contains lectin-like
A; Reference number: A29348; MUID:88007514; PMID:2820964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Molecule type: mRNA
A;Residues: 208-440;1094-1385;1910-2246 <YAO>
A;Residues: 208-440;1094-1385;1910-2246 <YAO>
R;Bignami, A.; Lane, W.S.; Andrews, D.; Dahl, D.
Brain Res. Bull. 22, 67-70, 1989
A;Title: Structural similarity of hyaluronate binding proteins in brain and cartilage.
A;Reference number: A60979; MOID:89229983; PMID:2469524
A;Accession: A60979
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A;Residues: 1-2409 <ZIM>
A;Cross-references: GB:X15998; NID:g37662; PIDN:CAA34128.1; PID:g37663
A;Cross-references: GB:X15998; NID:g37662; PIDN:CAA34128.1; PID:g37663
R;Yao, L.Y.; Moddy, C.; Schoenherr, E.; Wight, T.N.; Sandell, L.J.
Matrix Biol. 14, 213-225, 1994
                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Molecule type: protein
A; Residues: 171-210; 289-303 <BIG>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Title: Multiple domains of the large fibroblast proteoglycan, versican. A; Reference number: S06014; MUID:90059882; PMID:2583089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        R; Zimmermann, D.R.; kuosia; EMBO J. 8, 2975-2981, 1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C;Species: Homo Sapiens (man)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 19-Jan-2001 C;Accession: S06014; S43921; A60979; A30358; A29348; A45131; I54179 R;Zimmermann, D.R.; Ruoslahti, E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    versican precursor - human
N;Alternate names: chondroitin sulfate proteoglycan 2; chondroitin sulfate proteoglycan
N;Contains: glial hyaluronate-binding protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                322 RARMKCORKGGVLAQIKSOKVODILAFYLGRLETTNEVTDSDFETRNFWIGLTYKTAKDS 381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               442 Q 442
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAERECRLQGAHLTSILSHEEQ----MFVNRV-----GHDYQ----WIGLNDKMFEHD 2238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCVDGFNTFR-----CLCLPSYVGALCEQDT----ETCDYGWHKFQGQCYKYFAHRRTWD 2193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QCVHG---RFREEECSCVCDIGYGGAQCATKVHFPFHTCDL---RIDGDCFMVSSEADTYY 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               65
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7.9%; Score 200; DB 1; 27.0%; Pred. No. 5.6e-07;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       28;
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Genomics 5, 527-534, 1989

A;Title: Cloning and mapping of a testis-specific gene with sequence similarity to a A;Reference number: A33329; MUID:90129048; PMID:2613236

A;Accession: A33329
                                                                                                                                                                                                                                                                                                                       testis-specific protein - mouse
C;Species: Mus musculus (house mouse)
C;Date: 09-Mar-1990 #sequence_revision 09-Mar-1990 #text_change 29-Sep-1999
A; Molecule type: mRNA
A; Residues: 1-243 < KAS>
                                                                                                                                                                                                                          R;Kasahara, M.; Gutknecht, J.; Brew, K.; Spurr, N.; Goodfellow, P.N. Genomics 5, 527-534, 1989
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                                                               A; Status: preliminary
                                                                                                                                                                                                                                                                                                               C; Accession: A33329
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F;2309-2365/Domain: complement factor H repeat homology <FHD>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Cross-references: GDB:127873; OMIM:118661
A;Map position: 5q12-5q14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Gene:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Molecule type: DNA A; Residues: 251-347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 R;IOZZO, R.V.; Naso, M.F.; Cannizzaro, L.A.; Wasmuth, J.J.; McPherson, J.D. Genomics 14, 845-851, 1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 R:Perides, G.; Rahemtulla, F.; Lane, W.S.; Asher, R.A.; Bignami, A. J. Biol. Chem. 267, 23883-23887, 1992.
A;Title: Isolation of a large aggregating proteoglycan from human brain.
A;Reference number: A45131; MUID:93054750; PMID:1429726
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A; Molecule type: mRNA
A; Residues: 1725,'V',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Cross-references: GB:S52488; NID:g263313; PIDN:AAB24878.1; PID:g263314
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2160 NTFR-----CLCLPSYVGALCEQDT----ETCDYGWHKFQGQCYKYFAHRRTWDAAEREC 2210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2256 STLQYENWRPNQPDS----FFSAG---EDCVVIIWHENGQWNDVPCNYHLTYTCK 2303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2211 RLQGAHLTSILSHEEQ----MFVNRV-----GHDYQ----WIGLNDKMFEHDFRWTDG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2109 NPC-----LNGGTCYPTETSYVCTCVPGYSGDQCELDFDECHSNPCRNGATCVDGF 2159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             328 QRKGGVLAQIKSQKVQDILAFYLGRLETTNEVTDSDFETRNFWIGLTYKTAKDSFRWATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     388 EHQAFTSFAFGQPDNHGLVWLSAAMGFGNCVELQASAAFNWNDQRCKTRNRYICQ 442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         272 -RFREEECSCVCDIGYGGAQCATKVHFPFHTCDL---RIDGDCFMVSSEADTYYRARMKC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    230 NPCRMSCQNHGRLNISTCH-----CHCPPGYTGRYCQV-----RCSLQCVHG- 271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity
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Pred. No. 1.1e-06;
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A; Status: pretining A; Molecule type: nucleic acid
A; Molecule type: nucleic acid
A; Residues: 1-3562 <SHI>
A; Cross-references: GB:D15542; NID:g391643; PIDN:BAA02742.1; PID:g391644
A; Cross-references: GB:D15542; NID:g391643; PIDN:BAA02742.1; PID:g391644
A; Cross-references: GB:D15542; NID:g391643; PIDN:BAA02742.1; PID:g391644
A; Cross-references: GB:D15542; NID:g3916456; NCBIP:134457)
A; Note: sequence extracted from NCBI backbone (NCBIN:134456, NCBIP:134457)
A; Note: sequence extracted from NCBI backbone (NCBIN:134456, NCBIP:134457)
C; Superfamily: chicken chondroitin sulfate proteoglycan PG-M core protein; C-type lectin
F; 166-243/Domain: link protein repeat homology <LNK1>
F; 264-345/Domain: link protein repeat homology <LNK2>
F; 264-345/Domain: BGF homology <EGF1>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A47171
chondroitin sulfate proteoglycan PG-M core protein - chicken chondroitin sulfate proteoglycan PG-M core protein - chicken C:Species: Gallus gallus (chicken)
C:Date: 21-Sep-1993 #sequence_revision 18-Nov-1994 #text_change C:Accession: A47171
C:Accession: A47171
R;Shinomura, T:, Nishida, Y:; Ito, K.; Kimata, K.
J. Biol. Chem. 268, 14461-14469, 1993
A;Title: cDNA cloning of PG-M, a large chondroitin sulfate prote
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Reference number: A47171; MUID:93300846; PMID:8314802
A;Accession: A47171
A;Status: preliminary
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F;3296-3327/Domain: EGF homology <EGF>
F;3334-3454/Domain: C-type lectin homology <LCH>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
3400 RDFRWTDGSPLQYENWRPNQPDS----FFSAG---EDCVVIIWHENGQWNDVPCNYHLTY 3452
                                                                                                                              3355 WDTAERECRLQGAHLTSILSHEEQ----VFVNRI------GHDYQ----WIGLNDKMFE 3399
                                                                                                                                                                                                                                                         3302 RNGATCIDGL---NTFTCLCLPSYIGALCEQDT----ETCDYGWHKFQGQCYKYFAHRRT 3354
                                                                                                                                                                                                                                                                                                                                                                                    3247 GTAVQIPGQDPCKSNPCLNGG-----TCYPRGSFYICTCLPGFNGEQCELDIDECQSNPC 3301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            101 MSTDPTLWST --
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    228 LKTKCQATC-----LCEDKIH 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              141 VWYSSFKIGCGIAYCPNQDNLKYFYVCHYCPMGNNVMKKST--PYQQGTPCASCPNN--- 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         154 VWATSSQLGCGRHLCSAGQTAIEAFVCAYSPGGNWEVNGKTIIPYKKGAWCSLCTASVSG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity 24.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    274 REEECSCVCDIGYGGAQCATKVH 296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           214 CFKAWDHAGGICEVPRNPCRMSCQNHGRLNISTCHCHCPPGYTGRYCQVRCSLQCVHGRF 273
                                                           380 DSFRWATGEHQAFTSFAFGQPDNHGLVWLSAAMGFGNCVELQASAAFNWNDQRCKTRNRY 439
                                                                                                                                                                                      320 YYRARMKCQRKGGVLAQIKSQKVQDILAFYLGRLETTNEVTDSDFETRNFWIGLTYKTAK 379
                                                                                                                                                                                                                                                                                                                 263 RCSLQCVHGRFREEECSCVCDIGYGGAQCATKVHFPFHTCDL---RIDGDCFMVSSEADT 319
                                                                                                                                                                                                                                                                                                                                                                                                                                               222 GGLCEVP-RNPCRMS-CQNHGRLNISTCH-----CHCPPGYTGRYCQV------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                41 IVNKHNELRRSVNPTGSDILKMEWSIQATTNAQKWANKCILEHSSKDDRKINIRCGENLY 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               51 LLSLHNRLRSWVQPPAADMRRLDWSDSLAQLAQARAALCGIPTPS-----LASG---- 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7.6%; Score 191; DB 2; Length 3562; 25.1%; Pred. No. 4e-06; ative 35; Mismatches 91; Indels 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7.78;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           35; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 193.5; DB 2; Pred. No. 1.8e-07;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -VIQSWYNENEDFVYGVG-AKPNSAVGHYTQL 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  93;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
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A;Molecule type: mRNA
A;Residues: 1-1643 <SCH>
A;Cross-references: EMBL:AF060458; NID:g3253303; PID:g3253304; PIDN:AAC24360.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    J. Biol. Chem. 273, 15758-15764, 1998
A,Title: Versican V2 is a major extracellular matrix component of the mature bovine b A,Reference number: Z17954; MUID:98288320; PMID:9824174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             versican precursor, splice form V2 - bovine
C;Species: Bos primigenius taurus (cattle)
C;Date: 20-Sep-1999 #sequence_revision 20-Sep-1999 #text_change 05-May-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            F;1-20/Domain: signal sequence #status predicted <SIG>
F;21-1643/Product: versican, splice form V2 #status predicted <MAT>
F;57,331,352,817,965,1017,1333,1616,1626/Binding site: carbohydrate (Asn) (covalent)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Experimental source: brain C; Keywords: glycoprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R;Schmalfeldt, M.; Dours-Zimmermann, M.T.; Winterhalter, K.H.; Zimmermann, D.R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C; Accession: T14274
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                                                                                                                        Вþ
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Search completed: December Job time : 55 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 7.5%;
Best Local Similarity 26.0%;
Matches 61; Conservative 2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1343 NPC-----LNGGTCYPTETSYVCTCVPGYSGDRCELDFDECHSNPCRNGATCIDGF 1393
                                                                                                                        1490 STLQYENWRPNQPDS----FFSTG---EDCVVIIWHENGQWNDVPCNYHLTYTCK 1537
                                                                                                                                                                                                                                                                                                                                                                            1394 NTFR-----CLCLPSYVGALCEQDT----ETCDYGWHKFQGQCYKYFAHRRTWDAAEREC 1444
                                                                                                                                                                                                                                                1445 RLQGAHLTSILSHEEQ----MFVNRV-----GHDYQ----WIGLNDKMFEHDFRWTDG
                                                                                                                                                                                                                                                                                                              328 QRKGGVLAQIKSQKVQDILAFYLGRLETTNEVTDSDFETRNFWIGLTYKTAKDSFRWATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            230 NPCRMSCQNHGRLNISTCH-----CHCPPGYTGRYCQV-----RCSLQCVHG- 271
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                                                                                                                                                                                                                                                                                                                                                                                                                                    272 -RFREEECSCVCDIGYGGAQCATKVHFPFHTCDL---RIDGDCFMVSSEADTYYRARMKC 327
                                                                                                                                                                                      EHQAFTSFAFGQPDNHGLVWLSAAMGFGNCVELQASAAFNWNDQRCKTRNRYICQ 442
                                29, 2002,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       28; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 190; DB 2; Length 1643; Pred. No. 2.2e-06;
                                   02:26:41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             84; Indels
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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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Maximum DB
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence:
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     2222222111111110
22222221115511111
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189.5
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1: /cgn2_6/ptodata/2,
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3: /cgn2_6/ptodata/2,
4: /cgn2_6/ptodata/2,
5: /cgn2_6/ptodata/2,
6: /cgn2_6/ptodata/2,
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Match
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2529
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Copyright (c) 1993 - 2002 Compus
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/cgn2_6/ptodata/2/iaa/5B_COMB.pep:*
/cgn2_6/ptodata/2/iaa/6A_COMB.pep:*
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/cgn2_6/ptodata/2/iaa/backfiles1.pep:*
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US-08-840-062-5
US-08-614-935-28
US-09-130-287-224B-97
US-07-857-224B-98
US-07-857-224B-98
US-07-857-224B-99
US-08-614-935-6
US-08-614-935-6
US-08-614-935-7
US-09-130-287-6
US-09-130-287-6
US-07-857-224B-100
US-07-857-224B-100
US-07-857-224B-101
US-08-181-271A-45
US-08-444-9315-45
US-08-444-803-45
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US-09-199-887-1
US-08-773-368-3
US-09-199-887-3
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5180808-2
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US-09-199-887-4
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97, Appl
98, Appl
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45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28
166	. 166	166	168	168	168.5	169	169	171	171	171	171	171	171	171	171	171	171
6.6	6.6	6. 6	o. o	6.6	6.7	6.7		6.8	6.8	6.8		6.8	6.8	6.8	、6.8	6.8	6.8
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US-09-130-287-2	US-08-614-935-2	US-08-419-414-9	US-09-199-887-6	US-08-773-368-6	PCT-US95-03747-2	US-09-130-287-1	US-08-614-935-1	US-09-350-600-45	US-08-971-217-45	US-08-455-736-45	US-08-456-240-45	US-08-456-262-45	US-08-457-364-45	US-08-454-876-45	US-08-455-244-45	US-08-455-416-45	US-08-456-265A-45
Sequence 2,	Sequence 2,	Sequence 9,	Sequence 6,	Sequence 6,	Sequence 2,	Sequence 1,	Sequence 1,	•	Sequence 45,	Seguence 45,	Sequence 45,						
Appli	Appli	Appli	Appli	Appli	Appli	Appli	Appli	Appl	Appl	Appl	Appl	Appl	Appl	App1	App1	Appl	Appl

ALIGNMENTS

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RESULT 1
US-08-773-368-1
                                                                     US-08-773-368-1
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                Query Match
Best Local
Matches
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                                                                                                                                                                                         TELEX:
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION:
NAME: Billings, Lucy RJ
REGISTRATION NUMBER: 36,749
REFERENCE/DOCKET NUMBER: PF
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-855-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: FastSEQ for Windows Version 2.0 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/773,368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM: MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Bandman, Olga
APPLICANT: Goli, Surya K.
TITLE OF INVENTION: NOVEL HUMAN PATHOGENESIS-RELATED
TITLE OF INVENTION: PROTEIN
NUMBER OF SEQUENCES: 6
                                                                                    STRANDEDNESS: single
TOPOLOGY: linear
IMMEDIATE SOURCE:
CLONE: 1599164
                                                                                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION: 530 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS
                                                                                                                                                           LENGTH:
TYPE: a
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CITY: Palo Alto
STATE: CA
                                                                                                                                                                                                                                                   TELEFAX: 415-845-4166
                                                                                                                                                                                                                                                                                                                                                                             FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OPERATING SYSTEM:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE: Incyte Pharmaceuticals, STREET: 3174 Porter Drive
73;
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                  Similarity
                                                                                                                                                           amino acid
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Conservative
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                10.6%; Score 267; DB 2; 31.5%; Pred. No. 3.6e-16;
28; Mismatches
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                               Length 270;
Indels
52;
Gaps
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                                                                                                                                                        US-09-199-887-1
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                                                                                                                 Query Match
                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 1, Application US/09199887
Patent No. 6071874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                      INFORMATION FOR SEQ ID NO:
                                                                                                                                                                       IMMEDIATE SOURCE:
CLONE: 1599164
                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 270 amino acids
                                                                                                                                                                                                                                                                                                                                                          TELECOMMUNICATION INFORMATION: TELEPHONE: 415-855-0555
                                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
NAME: Billings, Lucy RJ
REGISTRATION NUMBER: 36,
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ for Windows Version
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM: MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Bandman, Olga
APPLICANT: Goli, Surya K.
TITLE OF INVENTION: NOVEL HUMAN PATHOGENESIS-RELATED
TITLE OF INVENTION: PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS
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                                                                                                                                                                                                                                                LENGTH:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180 CAYSPGGNWEVNGKTIIPYKKGAWCSLCTASVSGCFKAWDHAGGLCEVPRNP 231
11 LLPLLLLVATT-------GPV-GALTDEEKRLMVELHNLYRAQVSPTASDMLHM 57
                              13 LLAVLLALLGTTWAEVWPPQLQEQAPMAGALNRKESFLLLSLHNRLRSWVQPPAADMRRL 72
                                                                                                                                                                                                                           STRANDEDNESS:
                                                                                                Local Similarity
                                                                                                                                                                                                            TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                         TELEFAX: 415-845-4166
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CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OPERATING SYSTEM:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/09/199,887
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RWDEELAAFAKAYA-------RQXRXGHNKERGRRGENLFAITDEGMDVPLA 102
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                                                                                                                                                                                                                                             amino acid
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                                                                             Conservative
                                                                                                                                                                                                            linear
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                                                                                                                                                                                                                           single
                                                                       10.6%; Score 267; DB 3; 31.5%; Pred. No. 3.6e-16; ative 28; Mismatches 79;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        08/773,368
                                                                                                                                                                                                                                                                                                                                                                                                           36,749
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                                                                                                           Length 270;
                                                                           Indels
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US-08-773-368-3
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Best Local
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                                                                                                                                                                                                                                                                                                                                          INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS: LENGTH: 219 amino acids
                                                                                                                                                                                                                            INFOLOGY: linear
IMMEDIATE SOURCE:
LIBRARY: GenBank
CLONE: 847722
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                                                                                                                                                                                                                                                                                                                                                                                                                                    TELECOMMUNICATION INFORMATION: TELEPHONE: 415-855-0555
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NAME: Billings, Lucy RJ
REGISTRATION NUMBER: 36,749
REFERENCE/DOCKET NUMBER: PF
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CLASSIFICATION: 530
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: FastSEQ for Windows Version CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM: MEDIUM TYPE: Diskett
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Bandman, Olga APPLICANT: Goli, Surya K.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                163 CNYEPPGN--VKGKR--PYQEGTPCSQCPS-----GYHCKNSLCEPIGSP 203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180 CAYSPGGNWEVNGKTIIPYKKGAWCSLCTASVSGCFKAWDHAGGLCEVPRNP 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       103 MEEWHHEREHYNLSAATCSPGQMCGHYTQVVWAKTERIGCGSHFCEKLQGVEETNIELLV 162
     81
                                      94
                                                                      21 EDFIKDCVRIHNKFRSEVKPTASDMLYMTWDPALAQIAKAWASNCQFSHNTRLKPPHKLH
                                                                                                       47 ESFL--LLSLHNRLRSWVQPPAADMRRLDWSDSLAQLAQARAALCGIP-----T 93
                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/08/773,368
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                               PSLASGLWRTLQVGWNMQLLPAGLASFVEVVSLWFAEGQRYSHAAGECARNATCTHYTQL 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RWDEELAAFAKAYA-------RQXRXGHNKERGRRGENLFAITDEGMDVPLA 102
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                                                                                                                                                               Similarity
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                                                                                                                                              Conservative
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--LGENIWTGSVPIFSVSSAITNWYDEIQDYNFKTRICKK--VCGHYTQV 131
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                                                                                                                                                                                                                                                                                                        single
                                                                                                                                                             9.2%;
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                                                                                                                                              28;
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                                                                                                                                                             Score 232; DB 2;
Pred. No. 3.7e-13;
                                                                                                                                              Mismatches
                                                                                                                                                                              Length 219;
                                                                                                                                            Indels
                                                                                                                                            32;
                                                                                                                                         Gaps
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154 VWATSSQLGCGRHLCS--AGQTAIE---AFVCAYSPGGNWEVNGKTIIPYKKGAWCSLC

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US-09-199-887-3
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               US-08-773-368-4
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; Sequence 4, Application US/08773368
                                  RESULT 5
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                                                                                                                                                                                                                                                                                                                    Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Bandman, Olga
APPLICANT: GOll, SUTYA K.
TITLE OF INVENTION: NOVEL HUMAN PATHOGENESIS-RELATED
TITLE OF INVENTION: PROTEIN
NUMBER OF SEQUENCES: 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION DATA: APPLICATION NUMBER: US/09/199,887
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LIBRARY: GenBa
CLONE: 847722
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NAME: Billings, Lucy RJ
REGISTRATION NUMBER: 36,749
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TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-855-0555
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APPLICATION NUMBER:
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                                                                                             132
                                                                                                                              154 VWATSSQLGCGRHLCS--AGQTAIE---AFVCAYSPGGNWEVNGKTIIPYKKGAWCSLC 207
                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: STRANDEDNESS: SIN
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                                                                                                                                                                     81
                                                                                                                                                                                                      94 PSLASGLWRTLQVGWNMQLLPAGLASFVEVVSLWFAEGQRYSHAAGECARNATCTHYTQL 153
                                                                                                                                                                                                                                                                             47 ESFL--LLSLHNRLRSWVQPPAADMRRLDWSDSLAQLAQARAALCGIP------T 93
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                                                                                                                                                                   PNFTS-----LGENIWTGSVPIFSVSSAITNWYDEIQDYNFKTRICKK--VCGHYTQV 131
                                                                                                                                                                                                                                            EDFIKDCVRIHNKFRSEVKPTASDMLYMTWDPALAQIAKAWASNCQFSHNTRLKPPHKLH 80
                                                                                             VWADSYKVGCAVQFCPKVSGFDALSNGAHFICNYGPGGNYPT--
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                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                   Length 219;
                                                                                                                                                                                                                                                                                                                    Indels 32; Gaps
                                                                                             -WPYKRGATCSAC 185
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                                                                                                                                                           RESULT 6
US-09-199-887-4
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                                                                                                                        ; Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Patent No. 5856130 GENERAL INFORMATION:
                                                                                                                           Sequence 4, Application US/09199887 Patent No. 6071874
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                         GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Bandman, Olga
APPLICANT: Goli, Surya K.
TITLE OF INVENTION: NOVEL HUMAN PATHOGENESIS-RELATED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: FastSEQ for Windows Version 2.0 CURRENT APPLICATION DATA:
                              APPLICANT: Bandman, Olga
APPLICANT: Goli, Surya K.
TITLE OF INVENTION: NOVEL HUMAN PATHOGENESIS-RELATED
TITLE OF INVENTION: PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION: TELEPHONE: 415-855-0555
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CORRESPONDENCE ADDRESS:
                  NUMBER OF SEQUENCES:
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LIBRARY: 65...
1030053
                                                                                                                                                                                                                                   142 VWADSYKVGCAVQFCPKVSGFDALSNGAHFICNYGPGGNYPT-----WPYKRGATCSAC 195
                                                                                                                                                                                                                                                                     154 VWATSSQLGCGRHLCS--AGQTAIE---AFVCAYSPGGNWEVNGKTIIPYKKGAWCSLC 207
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                                                                                                                                                                                                                                                                                                                                        94 PSLASGLWRTLQVGWNMQLLPAGLASFVEVVSLWFAEGQRYSHAAGECARNATCTHYTQL 153
                                                                                                                                                                                                                                                                                                                                                                                                               47 ESFL--LISLHNRLRSWVQPPAADMRRLDWSDSLAQLAQARAALCGIP------T 93
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Billings, Lucy RJ
REGISTRATION NUMBER: 36,749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRESSEE: Incyte Pharmac STREET: 3174 Porter Drive
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local
                                                                                                                                                                                                                                                                                                        PNFTS-----LGENIWTGSVPIFSVSSAITNWYDEIQDYDFKTRICKK--VCGHYTQV 141
                                                                                                                                                                                                                                                                                                                                                                              EDFIKDCVRIHNKFRSEVKPTASDMLYMTWDPALAQIAKAWASNCQFSHNTRLKPPHKLH 90
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 231; DB 2;
Pred. No. 5.9e-13;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 266;
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                                                                                                                                                                                                                                                Patent No. 5648465
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                   Sequence 49, Application US/08340428B Patent No. 5648465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
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                                                                                                                     TITLE OF INVENTION: CLONING, EXPRESSION AND USES FOR A TITLE OF INVENTION: MEUROCAN AS A CHONDROITIN SULFATE PROTEOGLYCAN NUMBER OF SEQUENCES: 49
CORRESPONDENCE ADDRESS:
COMPUTER READABLE FORM:
                                                                                                                                                                                                APPLICANT:
APPLICANT:
                                                                                                                                                                                                                               APPLICANT: MARGOLIS, Richard U.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION: TELEPHONE: 415-855-0555
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                                                  STREET: 412 COUNTY: Washington
                                                                                                                                                                                                                                                                                                                                                                                 142
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                                   COUNTRY:
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SOFTWARE: FastSEQ for Windows Version
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                                                                                                        ADDRESSEE:
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REFERENCE/DOCKET NUMBER: PF
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REGISTRATION NUMBER: 36
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                                                                                                                                                                                                                                                                                                                                                                           VWADSYKVGCAVQFCPKVSGFDALSNGAHFICNYGPGGNYPT-----WPYKRGATCSAC 195
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                                                                                     419 Seventh Street, N.W.
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                                   U.S.A.
                                                                                                                                                                                        MARGOLIS, Renee K.
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                                                                                                                                                                                                                                                                               APPLICANT: RUOSLAHTI, ERKKI I.

TITLE OF INVENTION: VERSICAN CORE PROTEIN, NUCLEIC ACID
SEQUENCES ENCODING THE SAME, NUCLEIC ACID PROBES, ANTI-VERSICAN
ANTIBODIES, AND METHODS OF DETECTING THE SAME
                                                                                                                                                                            SEQ ID NO: 2
                                          Matches
                                                                 Query Match
Best Local
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Best Local
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                                                                                                                                                                                                                                       NUMBER OF SEQUENCES: 4
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1116 DNF-----FAGGEDCVVMVAHENGRWNDVPCNYNLPYVCK 1150
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LENGTH: 1257 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1071 EEHKFI-
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PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1015 PSYGGNLCEKDT----EGCDRGWHKFQGHCYRYFAHRRAWEDAERDCRRRAGHLTSVHSP 1070
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    401 DNHGLVWLSAAMGFGNCVELQASAAFNWNDQRCKTRNRYICQ 442
230 NPCRMSCQNHGRLNISTCH-----CHCPPGYTGRYCQV------RCSLQCVHG- 271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                177 AFVCAYSPGGNWEVNGKTIIPYKKGAWCS--LCTASVSGCFKAWDHAGGLCEVPRNPCRM 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       341 KVQDILAFYLGRLETTNEVTDSDFETRNFWIGLTYKTAKDSFRWATGEHQAFTSFAFGQP 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          284 IGYGGAQCATKVHFPFHTCDL---RIDGDCFMVSSEADTYYRARMKCQRKGGVLAQIKSQ 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           235 SCONHG---RLNISTCHCHCPPGYTGRYCQV----RCSLQCVHGRFREEECS---CVCD 283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          897 ASVSSGEPTRLWDI-PSTLIPVSLGLDESDLKVVAESPGLEGFWEEVASGQEDPTDPCEN 955
                                                                                                                                                                                              APPLICATION NUMBER: US/
FILING DATE: 27-NOV-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Browdy, Roger L.
REGISTRATION NUMBER: 25,618
REFERENCE/DOCKET NUMBER: Margolis=1A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEPHONE: 202-628-5197
TELEFAX: 202-737-3528
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: 07/922,911
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                                                                                                                                                      LENGTH: 2409
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                                          63;
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                                                                 Similarity
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                                          Conservative
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                                      7.8%; Score 196; DB 6; 1
26.8%; Pred. No. 1.5e-08;
tive 27; Mismatches 83;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8.4%; Score 212; DB 1;
24.8%; Pred. No. 2.4e-10;
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                                                                                Length 2409;
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                                          Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 mb floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: LASH
APPLICANT: WU,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2256 STLQYENWRPNQPDS----FFSAG---EDCVVIIWHENGQWNDVPCNYHLTYTCK 2303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2211 RLQGAHLTSILSHEEQ----MFVNRV-----GHDYQ----WIGLNDKMFEHDFRWTDG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2160 NTFR-----CLCLPSYVGALCEQDT----ETCDYGWHKFQGQCYKYFAHRRTWDAAEREC
                                                                                                                                                        180 CA-----YSPGGNWEVNGK----TI------IPYKKGAWCSLCTASVSGC 214
                                                                                                                                                                                              491 SHAVVPEGADKGCRKGWKRHGFYCYLIGSTLSTFTDANHTCTNEKAYLTTVEDRYEQAFL 550
                                                                                                                                                                                                                                      135 SHA-----AGECARNATCTH--YTQLVWATSSQLGCGRHLCS---AGQTAIE-----AFV 179
275 EEECSCVCDIGYGGAQCATKVHFPFHTCDLRIDGD------CFMV----SSEADTYY 321
                                                                                                                   551 TSLVGLRPEKYFWTGLSDVQNKGTFRWTVDEQVQFTHWNADMPGRKAG----CVAMKTGV 606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                272 -RFREEECSCVCDIGYGGAQCATKVHFPFHTCDL---RIDGDCFMVSSEADTYYRARMKC 327
                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 1455 ami
TYPE: Amino Acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: WinPatin (Genentech)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/08/840,062 FILING DATE:
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CITY: South San Francisco
STATE: California
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                                                                             FKAWDHAGGLCEVPRNPCRMSCQNHGRLNISTCHCHCPPGYTGRYCQVRCSLQCVHGRFR 274
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415/952-9881
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                                                                                                                                                                                                                                                                             7.5%; Score 189.5; DB 3; 23.3%; Pred. No. 3e-08; tive 45; Mismatches 105;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   P1019R1
                                                                                                                                                                                                                                                                                                                       Length 1455;
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GENERAL INFORMATION:
                                                                                                                                          Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: Jackson Esq., David A. REJESTRATION NUMBER: 26,742
REFERENCE/DOCKET NUMBER: 600
TELECOMMUNICATION INFORMATION:
TELEPHONE: 201-487-5800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 11-MAR-1996
CLASSIFICATION: 436
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                               FRAGMENT TYPE: ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                               MOLECULE TYPE:
HYPOTHETICAL:
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                107 GWNMQLLPAGLASFVEVVSLWFAEGQRYSHAAGECARNATCTHYTQLVWATSSQLGCGRH 166
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                                                                                     51 LLSLHNRLRSWVQPPAADMRRLDWSDSLAQLAQARAALCGI----PTPSLASGLWRTLQV 106
                                                                                                                                                                                                                                                                                                                     TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                   TYPE: amino acid
STRANDEDNESS: si
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                                                 6 IVNKHNELRKAVSPPASNMLKMEWSREVTTNAQRWANKCTLQHSDPEDRKTS----TRC 60
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New Jersey
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                                                                                                                                                                                                                                                  N-terminal
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                                                                                                                                       7.3%; Score 185; DB 1; 30.5%; Pred. No. 3.7e-09;
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Indels
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Sequence 28, Appr-
Sequence 28, Appr-
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APPLICANT: King,
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                                                                                                                                                                                                                                                                                                                  FRAGMENT TYPE:
ORIGINAL SOURCE:
ORGANISM: Hom
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REFERENCE/DOCKET NUMBER: 60
TELECOMMUNICATION INFORMATION:
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PRIOR APPLICATION UDATA:
APPLICATION INMBER: US 08/614,935
FILLING DATE: 11-MAR-1996
CLASSIFICATION: 424
CLASSIFICATION: 424
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TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                            ANTI-SENSE:
                                                                                                                                                                                                                                                                                                                                                                                            HYPOTHETICAL:
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120 YCPNQDSLKYYYVCQYCPAGN-NMNRKN-TPYQQ 151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          167 LCSAGQTAIEAFVCAYSPGGNWEVNGKTIIPYKK 200
                                   167 LCSAGQTAIEAFVCAYSPGGNWEVNGKTIIPYKK 200
                                                                                                           107 GWNMQLLPAGLASFVEVVSLWFAEGQRYSHAAGECARNATCTHYTQLVWATSSQLGCGRH 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                        61 GENL-YMSSDPTSWSSAIQSWYDEILDFVYGVGPKSPNAVVGHYTQLVWYSTYQVGCGIA 119
                                                                                                                                                                                   51 LLSLHNRLRSWVQPPAADMRRLDWSDSLAQLAQARAALCGI----PTPSLASGLWRTLQV 106
                                                                                                                                                                                                                            Local Similarity
les 47; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY:
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                                                                                                                                                IVNKHNELRKAVSPPASNMLKMEWSREVTTNAQRWANKCTLQHSDPEDRKTS----TRC 60
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201-343-1684
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linear
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                                                                                                                                                                                                                        7.3%; Score 185; DB 3; 30.5%; Pred. No. 3.7e-09; tive 28; Mismatches 67;
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                                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 47; Conserv
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ADDRESSEE: Steven A. Benner
STREET: Hadlaubstrasse 151
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PUBLICATION INFORMATION:
112 CNNGWWFIS---CNYDPVGNW 129
                                                                                                                                                                                                                                                                                                               PAGES: 20
                                                                                                                                                                                                                                                                                                                                                          JOURNAL:
VOLUME:
                                                                                                                                                                                  52 LSLHNRLRSWYQPPAADMRRLDWSDSLAQLAQ----ARAALCGIPTPSLASGLWRTLQVG 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 0 CLASSIFICATION:
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FILING DATE: 03/25/92
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                                   CSAGQTAIEAFVCAYSPGGNW 188
                                                                                                             WNMQLLPAGLASFVEVVSLWFAEGQRYSHAAGECARNATCTHYTQLVWATSSQLGCGRHL 167
                                                                                                                                                  LAVHNDARAQV-----GVGPMSWDANLASRAQNYANSRAGDCNL----IHSGAGENLAKG 58
                                                                        -----GGDFTGRAAVQLWVSERPSYNYATNQCVGGKKCRHYTQVVWRNSVRLGCGRAR 111
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Carr, J. P.
Klessig, D. F.
Klessig, D. F.
Isolation and nucleotide sequence of cDNA clones for the
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                                                                                                                                                                                                                         7.2%; Score 182.5; DB 2
33.3%; Pred. No. 5.3e-09;
tive 17; Mismatches 54
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US-07-857-224B-98
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MOLECULE TYPE:
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112 CNNGWWFIS---CNYDPVGNW 129
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MEDIUM TYPE: 3.5 inch diskette, 1.4 Mb storage
                                168 CSAGQTAIEAFVCAYSPGGNW 188
                                                                                                108 WNMQLLPAGLASFVEVVSLWFAEGQRYSHAAGECARNATCTHYTQLVWATSSQLGCGRHL 167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
ADDRESSEE: Steven A. Benner
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TITLE OF INVENTION: Predicti
NUMBER OF SEQUENCES: 114
                                                             59 ------GGDFTGRAAVQLWVSERPSYNYATNQCVGGKKCRHYTQVVWRNSVRLGCGRAR 111
                                                                                                                                                                                                                                                                                                                                              JOURNAL:
VOLUME:
                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS: Cutt, J. R.
AUTHORS: Dixon, D. C.
AUTHORS: Carr, J. P.
AUTHORS: Klessig, D. F.
AUTHORS: Klessig, D. F.
TITLE: Isolation and nucleotide sequence of cDNA clones for the
pathogenesis related proteins of Nicotiniana tabacum induced by TMV
                                                                                                                                                                     52 LSLHNRLRSWYQPPAADMRRLDWSDSLAQLAQ----ARAALCGIPTPSLASGLWRTLQVG 107
                                                                                                                                                                                                                                                                                                            PAGES: 9861
DATE: 1988
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FILING DATE: 03/25/92
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Pred. No. 5.3e-09;
7; Mismatches 54; Indels 23
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US-07-857-224B-99

; Sequence 10, Application US/08419414
; Patent No. 5753787

US-08-419-414-10

RESULT 14

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RESULT 15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 99, Application US/07857224B Patent No. 5958784
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                                               112 CNNGWWFIS---CNYDPVGNW 129
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PRIOR APPLICATION DATA: none
TELECOMMUNICATION INFORMATION:
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                                                                                                                                                 108 WNMQLLPAGLASFYEVYSLWFAEGQRYSHAAGECARNATCTHYTQLVWATSSQLGCGRHL 167
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ADDRESSEE: Steven A. Benner
                                                                                  168 CSAGQTAIEAFVCAYSPGGNW 188
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                                                                                                              59 -----GGDFTGRAAVQLWVSERPDYNYATNQCVGGKMCGHYTQVVWRNSVRLGCGRAR 111
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STREET: ...
THMY: Zurich
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DATE: 1988
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                                                                                                                                                                                     LAVHNDARAQV-----GVGPMSWDANLASRAQNYANSRAGDCNL----IHSGAGENLAKG 58
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             amino acid
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Dixon, D. C.
Carr, J. P.
Klessig, D. F.
Klessig, D. F.
Isolation and nucleotide sequence of cDNA clones for the
Isolation and nucleotide sequence of Nicotiniana tabacum induced by TMV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cutt, J. R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hadlaubstrasse 151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               : (International) 41 1 632 2830 (International) 41 1 262 2437
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US/07/857,224B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Table 16 Row 3
                                                                                                                                                                                                                                                                                                DB 2; Length 135;
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Qγ
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APPLICANT: Hottez, Peter J.
APPLICANT: Jones, Brian F.
APPLICANT: Jones, Brian F.
ITILE OF INVENTION: Hookworm Vaccine
NUMBER OF SEQUENCES: 16
CORRESPONDENCE ADDRESS:
ADDRESSEE: Patrea L. Pabst
STREET: 2800 One Atlantic Center
STREET: 1201 West Peachtree Street
Search completed: December 29, 2002, 02:27:28 Job time : 39 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; ANTI-SENSE: NO
; ORIGINAL SOURCE:
; ORGANISM: Pollstes annulatis
US-08-419-414-10
                                                                                                밁
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NAME: Pabst, Patrea L.

REGISTRATION NUMBER: 31,284
REFERENCE/DOCKET NUMBER: YUll3
TELECOMMUNICATION INFORMATION:
TELEPHONE: (404) 873-8795
TELEFAX: (404) 873-8795
INFORMATION FOR SEQ ID NO: 10:
SEQUENCE CHARACTERISTICS:
LENGTH: 205 amino acids
TYPE: amino acid
STRANDENNESS: single
TYPE: Jinear
MOLECULE TYPE: protein
HYPOTHETICAL: NO
ANTI-SENER: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
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MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC compatible
COMPUTER: IEM PC compatible
COMPUTER: PATEN: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURENT APPLICATION DATA:
APPLICATION NUMBER: US/08/419,414
FILING DATE:
CLASSIFICATION: 514
CLASSIFICATION: 514
                                                                                                                                         149 HYTQLVWATSSQLGCGRHLCSAGQTAIEAFVCAYSPGGNWEVNGKTIIPYKK 200
                                                                                             157 HYTOMVWGKTKEIGCGSLKYMENNMONHYLICNYGPAGNY--LGQ--LPYTK 204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STATE: Georgia
COUNTRY: USA
                                                                                                                                                                                                                                                                                   41 EEKKLIVSEHNRFROKVAQGLETRGNPGPQPAASDMNDLVWNDELAHIAQVWASQCQF-- 98
                                                                                                                                                                                                                                                                                                              ZIP: 30309-3450
                                                                                                                                                                                        99 --LVHDKCRNTAKYPVGQNIAYAGGSNLPDVVSLIKLWENEVKDFNYNTGITKQNFAKIG 156
                                                                                                                                                                                                                                    94 PSLASGLWRT----LOVGWNMQLL-PAGLASFVEVVSLWFAEGQRYSHAAGECARN-ATCT 148
                                                                                                                                                                                                                                                                                                                                                                            Match 7.1%; Score 180.5; DB 1; Length 205;
Local Similarity 30.8%; Pred. No. 1.4e-08;
es 53; Conservative 24; Mismatches 70; Indels 25;
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